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論文

ANNUAL REPORT

OF THE

CENTRAL METEOROLOGICAL OBSERVATORY OF JAPAN

FOR

THE YEAR 1891.

PART II.

MEMOIRS.

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CONTENTS.

MEMOIRS.

CLIMATIC REVIEW

FOR

THE YEAR 1891.

In compiling the present Review the principal data made use of are the monthly and yearly meteorological reports of 9 stations of first order where hourly observations have been taken and those of 39 stations of second order making six-daily observations at 2 am, 6 am, 10 am, 2 pm, 6 pm and 10 pm.

The general distribution of atmospheric pressure and air temperature is shown in the plates I—XXVI by the means of Isobaric and Isothermal curves.

ATMOSPHERIC PRESSURE AND WIND.

THE WHOLE YEAR.—The annual mean pressure ranges highest 763 mm in Western Korea, lowest 759 mm in Eastern Hokkaido; the isobars form some concentric curves, turning their concavities toward the west. The line of 761 mm passed over Liukiu, traversed Central Japan and near Vladivostok.

The highest pressure observed in this year is 778.1 mm at Nagano on the 7th November; the lowest is 713.2 mm at Nagasaki on the 15th September.

The mean direction of wind is generally northerly to westerly in the South, southerly to westerly in the North.

The maximum wind velocity is 43.2 m. p. s. at Suttsu on the 10th September.

JANUARY.—The mean pressure decreases gradually from Korea to Hokkaido; the highest value 769 mm covers the West Coast of Korea, the lowest 756 mm displaying over the Southeast Coast of Hokkaido. The isobaric lines runned nearly parallel to the meridians, but in the southern part, it turned its convexities toward the east, in the northern part toward the west. The line of 765 mm comes up from Okinawa, traversing Western Shikoku, thence goes out into the Sea of Japan and stretching northward, reaches Siberian Coast.

The absolute maximum pressure in this month was 777.8 mm at Kamikawa on the 29th and the minimum 744.5 mm at Suttsu on the 15th.

The mean direction of wind was generally northwesterly; the maximum velocity was 42.3 m. p. s. at Erimo on the 16th, its direction having been eastnortheast.

FEBRUARY.—The mean pressure was highest over Northern Korea where it was 769 mm; to the eastward readings decreasing; the lowest was 761.3 mm over Southeastern Hokkaido.

The isobaric lines run somewhat northeastwards; the line of 765 mm rises up from the region far west about 33° parallel, traversing Southern Kiushu, Eastern Shikoku, West of Ozaka and Fushiki, then entering the Sea of Japan, went up to the Siberian Coast.

The absolute maximum pressure 775.3 mm occurred at Nemuro on the 3rd, the absolute minimum 739.0 mm at Choshi on the 28th.

The prevailing winds were generally northerly, but at places on the Northwest Coast they were southerly.

The maximum wind velocity occurred at Erimo on the 19th, measuring 41.6 m. p. s. and direction westnorthwest.

MARCH.—The mean pressure was highest over Southern Korea where it was 765 mm or more; readings decreasing to the northeastward, the lowest was noted on the Northeast Coast of Hokkaido where it was 760 mm.

The isobaric lines in the current month are slightly different in shape. Southern Korea is bounded by the line of 765 mm and that of 763 mm comes up from Northern Liukiu extending east and north, traversing Central Nippon just near Tsu and Fushiki, thence curves its course in the Sea of Japan to the westward, and reaches Northern Korea. Other lines run almost parallel to the above.

The absolute maximum pressure 774.8 mm occurred at Tokio on the 3rd, the minimum 735.0 mm at Nemuro on the 29th.

The mean direction of wind was northerly in the South, southerly in the North.

The maximum wind force was noted at Nemuro on the 12th, the measured velocity being 30.2 m. p. s. and direction northwest.

APRIL.—The mean pressure was highest in Southern Korea where it was 764 mm, lowest in Northern Hokkaido 760 mm and more.

The isobaric lines form large loops. The line of 763 mm, for instance, comes up from near Quelpart and advances along the West and Northwest Coast, turns back near Akita to the westward and reaches Northern Korea.

The absolute maximum pressure 772.8 mm occurred at Utsunomiya on the 4th, the minimum 746.2 mm at Abashiri on the 24th.

The mean direction of wind was northeasterly in the extreme West and Southeast, southerly in the North, elsewhere northerly.

The maximum wind force was noted at Erimo on the 10th, the measured velocity being 31.3 m. p. s., its direction west.

MAY.—The mean pressure was highest in Southern Kiushu where it was 759 mm, lowest in Northern Hokkaido 753 mm or more.

The isobaric line of 758 mm comes up from Northern Liukiu, far off the extreme South Coast, crosses Owari Bay, Inland Sea and Western Nippon, and finally goes

up to Southern Korea; others run almost similar to it.

The absolute maximum pressure 768.3 mm occurred at Nagano on the 1st, the minimum 738.1 mm at Soya on the 25th.

The mean direction of wind was southwesterly generally.

The maximum wind velocity was 42.5 m. p. s. at Erimo on the 17th, its direction having been west.

JUNE.—In this month the distribution of pressure was entirely altered, the highest being in the extreme Northeast, 761 mm, the lowest at Naha 755 mm.

The isobaric lines all extend from the Pacific towards the Continent, curving most on the Northwest Coast and in the Sea of Japan.

The absolute maximum pressure 766.1 mm occurred at Gifu on the 1st, the minimum 739.2 mm at Kamikawa on the 25th. The range was 26.9 mm.

The mean direction of wind was southeast or northeast, but variable near Western Inland Sea, where a small low area appears, bordered by the isobar of 756 mm.

The maximum wind force was observed at Erimo on the 6th, the velocity m. p. s. being 38.3 and direction northeast.

JULY.—The mean pressure was highest on the South Coast where it was 757 mm, lowest in Central Korea 755 mm.

The isobaric line of 757 mm extends from Northeastern Liukiu to Southern Kiushu, running along the whole South Coast; others travel similar to the above.

The absolute maximum pressure occurred was 764.4 mm at Nemuro on the 2nd, the minimum 743.8 mm at Nemuro on the 19th.

The mean direction of wind was generally southerly in the South, variable in Northern Nippon and Hokkaido.

The maximum wind force was noted at Suttsu on the 11th, the measured velocity being 30.5 m. p. s., its direction south.

AUGUST.—The mean pressure was highest on the Southeast Coast where it was 759 mm, lowest in Okinawa, Naha having 757 mm.

The distribution of pressure in this month effected much change as compared with previous ones, gradients being small and isobars running rather irregularly.

The absolute maximum pressure occurred was 764.5 mm on the 1st at Miyako, the minimum 730.0 mm on the 16th at Kochi.

The mean direction of wind was generally southerly.

The maximum wind force observed was 33.9 m. p. s., its direction south which had occurred at Suttsu on the 18th.

SEPTEMBER.—The mean pressure was highest over Northern Korea where it was 762 mm, lowest at Naha 756 mm.

Accurately speaking the highest mean pressure was shown in two extensive areas bounded by isobars of 760 mm ; one of which included Eastern Japan, the other covered the region lying Northeast of Korea. The isobars of 759 to 756 mm, run almost similar to each other.

The absolute maximum pressure 770.8 mm occurred at Suttsu on the 20th; the minimum 713.1 mm at Nagasaki on the 14th.

The mean direction of wind was northerly at places in Western Japan, southerly generally elsewhere.

The maximum wind velocity occurred at Suttsu on the 10th, measuring 43.2 m. p. s., its direction having been southsoutheast.

OCTOBER.—The mean pressure was highest over Central Korea and the Central Sea of Japan where it was 764 mm, lowest at Naha 760 mm, Soya 760 mm.

The isobar of 764 encloses the Central Sea of Japan, forming a figure like ellipse while those of 763 to 760, run as it were almost parallel to it.

The absolute maximum pressure 772.2 mm occurred at Nagano on the 17th, the minimum 741.2 mm at Nemuro on the 19th.

The mean direction of wind was generally north to east in the South, south to west in the North.

The maximum wind velocity was observed at Suttsu on the 22nd, measuring 26.2 m. p. s., its direction southsoutheast.

NOVEMBER.—The mean pressure was highest over Western Korea where it was 768 mm, lowest over the Sea of Okhotsk where the readings observed was 759 mm or more.

In this month the isobaric lines resume their winter shapes, that is all lines running northerly and growing closer, readings decreasing from the west toward the east.

The absolute maximum pressure occurred was 777.4 mm which was noted at Sakai on the 28th, the minimum 744.4 mm at Soya on the 5th.

The mean direction of wind was northerly in the South, westerly in the North.

The maximum wind force observed was 34.0 m. p. s., which occurred at Suttsu on the 19th, the direction being southwest.

DECEMBER.—The mean pressure was highest over Western Korea where it was 770 mm, lowest over the Sea of Okhotsk 760 mm.

The isobaric feature is just like November and it is scarcely necessary to describe it in minutes.

The absolute maximum pressure was 777.5 mm which had occurred at Nagano on the 7th, the minimum 738.0 mm noted at Akita on the 4th, the range being 39.5 mm.

The mean direction of wind was northerly in the South, westerly in the North.

The maximum wind velocity was 40.0 m. p. s. which was observed at Suttsu on the 9th, the direction being southsoutheast.

AIR TEMPERATURE.

THE WHOLE YEAR.—The annual mean temperature was highest at Naha where it was 21°.8, the lowest at Kamikawa 5°.8.

The stations where the absolute maximum temperature rose above 35° were Miyazaki (35°.9), Kumamoto (35°.6), Fukuoka (35°.0), Gifu (35°.3), Hamamatsu (35°.8), Fukushima (35°.5).

The lowest temperature fell below 20° under the freezing point was noted at Hakodate (−21°.7), Sapporo (−24°.5), Abashiri (−21°.0), Kushiro (−27°.4); the highest minimum 7°.4 was noted at Naha.

JANUARY.—The current month was cold throughout. The mean temperature was below the normal all over Japan but the maximum deficiency only amounts to 2°.3 in Central Hokkaido, diminishing further to the South.

The mean temperature was highest at Okinawa, the reading being 16°, lowest at Kamikawa −12°.

The isothermal lines below 32° of Latitude run nearly parallel to the lines of Latitude, but in Japan they form a curvature corresponding somewhat to the coast lines, occasionally shaping a loop in the inland, in Korea however no such occurrence is exactly brought out.

The absolute maximum temperature was at Naha, 25°.1 on the 30th, the absolute minimum at Kamikawa −36°.7 on the 29th. The maximum daily ranges vary from 23°.4 at Kamikawa to 9°.1 at Nemuro.

FEBRUARY.—The month was warmer in the South, about the normal in the North; the excess being 1°.7 in Southern Kiushu.

The mean temperature ranges from 17° at Okinawa to −9° at Kamikawa.

In this month the isothermal lines show no marked changes.

The absolute maximum temperature was at Naha, 25°.8 on the 27th, the absolute minimum at Kushiro, −24°.6 on the 19th. The extreme maximum daily ranges are 27°.2 at Kamikawa, 7°.9 at Akamagaseki.

MARCH.—The month was warmer throughout, the amount of excess increasing from the South toward the North.

The mean temperature ranges from 17° at Naha to 0° at Kamikawa.

The isothermal lines become rather loose as compared with two preceding months, this general feature however make no appreciable changes.

The absolute maximum temperature was at Naha 25°.3 on the 3rd, the absolute minimum at Kushiro −19°.6 on the 13th. The extreme maximum daily ranges are 23°.9 at Kamikawa, 10°.4 at Soya.

APRIL.—The mean temperature was about the normal except Hokkaido where it shows some excess, the maximum amount being at Soya (1°.4).

The mean monthly temperature ranges from 20° at Naha to 4° at Kushiro. This month the isothermal lines appear still as to retain its winter distribution.

The absolute maximum temperature was at Naha 27°.9 on the 25th, the absolute minimum at Kushiro −9°.5 on the 8th. The extreme daily ranges are 28°.0 at Kamikawa, 12°.0 at Erimo.

MAY.—The month was generally warmer. In Central Japan it was about 2° above the normal.

The mean readings range from 23° at Naha to 9° at Nemuro.

The general aspect of the isothermal lines is worthy of remark ; the sharpness of their curvature decreased much, and in Hokkaido the case is just reversed, the central part becoming warmer than the eastern coast.

The absolute maximum temperature was 34°.9 at Kioto on the 22nd, the absolute minimum −3°.3 at Kushiro on the 1st. The extreme maximum daily ranges are 28°.4 at Kamikawa, 9°.6 at Soya.

JUNE.—The mean temperature was about the normal except a few inland regions in Hokkaido, even the excess being only 1°.

The mean readings range from 24° at Osaka to 10° at Nemuro.

The whole feature of the isotherms changed in this month. Temperature is higher in the inland than the coast, so that the isothermal lines run as it were to enclose land.

The absolute maximum temperature was 34°.1 at Matsuyama on the 24th, the absolute minimum 0°.3 at Kushiro on the 20th. The extreme maximum daily ranges are 22°.2 at Kamikawa, 8°.7 at Erimo.

JULY.—The mean temperature was about the normal, the maximum departure only being −1° in Northern Hokkaido, +1° in the Southeast.

The mean readings range from 28° at Naha to 15° at Nemuro.

The isothermal lines run just similar to June.

The absolute maximum temperature was 35°.9 at Miyazaki on the 26th, the absolute minimum 6°.0 at Kushiro on the 21st. The extreme maximum daily ranges are 17°.2 at Kamikawa, 8°.0 at Erimo.

AUGUST.—The mean temperature was about the normal in the South, below it in the North, the maximum deficiency being 2° near Sapporo.

The mean readings range from 27° at Naha to 17° at Nemuro.

In this month, the thermal gradients decreased slightly, the isotherms running similar to the preceding month.

The absolute maximum temperature was 35°.8 at Hamamatsu on the 13th, the absolute minimum 7°.5 at Kushiro on the 23rd. The maximum daily ranges vary from 18°.7 at Kamikawa to 8°.7 at Akamagaseki.

SEPTEMBER.—The mean air temperature was generally above the normal, about it in Hokkaido, the maximum excess being 2° or more in the Southeast.

The mean temperature ranges from 27° at Naha to 15° at Kamikawa.

The isotherms of the current month is somewhat noteworthy, as the distribution of temperature undergoes some change, inland growing colder than the coast although the case is not conspicuous as in the winter months.

The absolute maximum temperature was 35°.4 on the 1st at Kumamoto, the absolute minimum 1°.2 on the 20th at Sapporo. The extreme maximum daily ranges vary from 16°.9 at Kamikawa to 6°.7 at Erimo.

OCTOBER.—The mean temperature was about the normal, except Kiushu where it was somewhat in excess.

The highest temperature was at Naha 25°, the lowest at Kamikawa 8°.

The thermal gradients appear to have increased; the isothermal lines grew closer than September and their curvature well noticeable.

The absolute maximum temperature was 30°.6 on the 5th, 13th, 18th, 19th and 24th at Naha, the absolute minimum −4°.3 on the 26th at Kamikawa. The extreme daily ranges are 21°.6 at Fukushima, 9°.9 at Erimo.

NOVEMBER.—The mean air temperature was about the normal throughout. The readings range from 20° at Naha to 1° at Kamikawa. The whole feature of isothermal lines has altered and resumes their winter characteristics. The lines run similar to January though not so closer.

The absolute maximum temperature was 28°.8 on the 4th at Naha, the minimum −14°.0 at Kamikawa on the 28th. The extreme maximum daily ranges vary from 21°.5 at Kushiro to 7°.0 at Erimo.

DECEMBER.—The month was somewhat warmer. The mean temperature ranges from 18° at Naha to −5° at Kushiro.

The isothermal lines show no difference in respect of their form, but become much closer as compared with November.

The absolute maximum temperature was 26°.1 on the 15th at Naha, the absolute minimum −22°.1 on the 8th at Kushiro. The extreme daily ranges are 23°.6 at Kushiro, 8°.3 at Soya.

PRECIPITATION.

JANUARY.—Days of the greatest precipitation were the 4th, 9th and 31st.

The maximum monthly precipitation was 547 mm at Fushiki, the absolute maximum amount 54 mm for 24 hours having been measured at Kanazawa on the 16th.

The monthly precipitation was generally below the normal; the most marked

deficiency was shown in the extreme Northern Hokkaido where it was 45. In a narrow area belonging to Northwestern Nippon and in the Southern Sea of Japan, the excess was noticeable.

FEBRUARY.—Days of the greatest precipitation were the 5th and 6th.

The maximum monthly precipitation was 169 mm at Naha, the absolute maximum amount 56 mm for 24 hours having been measured at Kagoshima and Miyazaki on the 4th.

The monthly precipitation was above the normal, except on the Southeast Coast and in Eastern Hokkaido, where the deficiency was not much marked.

MARCH.—Days of the greatest precipitation were the 4th, 10th, 17th and 21st.

The maximum monthly precipitation was 225 mm at Choshi, the absolute maximum amount 118 mm for 24 hours having been measured also at this station on the 10th.

The monthly precipitation was above the normal in the East, below it in the West.

APRIL.—Day of the greatest precipitation was the 26th only.

The maximum monthly precipitation was 516 mm at Naha, the absolute daily maximum having been measured 352 mm, also at this station on the 11th.

The monthly precipitation was below the normal generally, the noticeable deficiency having occurred in Central Kiushu, Southern Shikoku, Korea Strait and near Hiroshima, which were over 100 mm.

MAY.—Days of the greatest precipitation were the 3rd, 4th, 5th, 16th and 25th.

The maximum monthly precipitation was 455 mm at Naha, the absolute daily maximum having occurred at Kochi on the 15th which amount was 125 mm.

The monthly precipitation was below the normal throughout, the deficiency having been somewhat remarkable in the extreme Southwest,—over 100 mm, even at Miyazaki we notice a number over 200.

JUNE.—Days of the greatest precipitation were the 3rd, 4th, 15th, 21st, 24th, 25th and 30th.

The maximum monthly precipitation was 515 mm at Kochi, the absolute daily maximum having been 172 mm, occurred at Itsugahara on the 29th.

The monthly precipitation was generally below the normal, exceedingly in Kiushu, the maximum deficiency amounting to 250 or more, while it was above the normal in the Southern Sea of Japan, Southern Shikoku, near Tokio, Tsugaru Strait and the Extreme Northeast.

JULY.—Days of the greatest precipitation were the 3rd, 4th, 5th, 15th, 20th and 21st.

The maximum monthly precipitation was 1152 mm at Itsugahara, the absolute daily maximum having been 230 mm, measured also at Itsugahara on the 3rd.

The monthly precipitation was above the normal except on the Extreme South

South Coast and in Eastern Nippon, the excess being most considerable in Korea Strait, amongst which Itsugahara was the maximum 772 mm.

AUGUST.—Days of the greatest precipitation were the 16th, 17th, 18th, 21st, 22nd and 23rd.

The maximum monthly precipitation was 422 mm at Naha, the absolute daily maximum amount having been 150 mm occurred also at this station on the 1st.

The monthly precipitation was above the normal except in the Southeast and Northeastern Hokkaido, the maximum excess amounting to 160 mm in Western Kiushu.

SEPTEMBER.—Days of the greatest precipitation were the 8th, 13th, 21st, 22nd and 30th.

The maximum monthly precipitition was 677 mm at Kochi, the absolute daily maximum having been 176 mm at Nagasaki on the 8th.

The monthly precipitation was above the normal except on the East Coast, in Hokkaido and a small area lying between Sakai, Kioto and Kanazawa; the excess being greatest in Korea Strait (258 mm at Itsugahara) and on the South Coast.

OCTOBER.—No great precipitation occurred in the month.

The maximum monthly precipitation was 200 mm at Soya, absolute daily maximum being 69 mm at Choshi on the 28th.

The monthly precipitation was below the normal except in Northern Hokkaido, the deficiency being greatest on the Central South Coast, where the maximum amount was 274.

NOVEMBER.—Days of the greatest precipitation were the 10th and 24th.

The maximum monthly precipitation was 217 mm at Akita, the absolute maximum for 24 hours having been 58 mm at Sakai on the 24th.

The monthly precipitation was generally below the normal, the deficiency being greatest at Kochi and Kanazawa, where the amounts exceeded little over 100.

DECEMBER.—Days of the greatest precipitation were the 4th, 8th and 31st.

The maximum monthly precipitation was 343 mm at Kanazawa, the absolute maximum for 24 hours having been 78 mm at Kochi on the 8th.

The monthly precipitation was above the normal in the extreme West, Southern Kiushu, Inland Sea and on the East Coast, though the amount of excess was not so noticeable; elsewhere below it.

WEATHER.

JANUARY.—Marked dry days were experienced as usual on the whole South Coast and at the eastern extremity of Hokkaido except Kagoshima; elsewhere experienced wet days which were most prominent along the Sea of Japan northeastward from Sakai to Suttsu.

In general the weather characteristics are well established, separating the map roughly into 2 districts, one being the region facing to the Pacific Ocean, the other exposing to the Sea of Japan. Rainy weather was experienced in the beginning and close days of the current month; snow fell occasionally in the northern districts. Over the half of the month clear weather was experienced in the southeastern districts.

The region where the mean air temperature did not fall below 0° was the extreme South, the extreme southeast and Okinawa; the maximum temperature fell below 0° at Itsugahara, Sakai and in the whole North, the minimum fell below the freezing point all over Japan, but at Naha it was above.

FEBRUARY.—Wet days were experienced on the Northwest Coast; elsewhere remarkable dry days, except on the West Coast. Rainy weather was experienced in the first decade; snow fell occasionally in the northern districts. Over the greater part of the month, fair weather was experienced, but windy in the northern provinces.

The region where the mean air temperature did not fall below the freezing point was the extreme South, Southwest and Okinawa; the maximum temperature fell below 0° in the whole North; the minimum above 0° was recorded only at Naha.

MARCH.—Wet days were experienced also on the Northwest Coast but not so much marked as the preceding two months, elsewhere mostly dry days. In this month the weather characteristics, as described in January, appears to have dispersed. The weather was unsettlled, rainy in the middle decade, but it was fair in the beginning and close days of the month.

The stations recorded the mean air temperature below the freezing point were Nagano, Yamagata and those in the extreme North; the maximum fell below it only in Hokkaido except Sapporo and Hakodate; the minimum above 0° was noted only at Naha, Akamagaseki and Choshi.

APRIL.—In this month wet days were experienced on the South Coast, and just in the reverse, some dry days continued on part of the Northwest Coast.

Rainy weather was experienced occasionally, most in the West; snow fell only a few days in the North. We however enjoy frequent fair weather in the northern districts.

The region where the mean air temperature fell below the freezing point was only the Central and Eastern Hokkaido; the maximum below it nowhere recorded; the minimum below it was noted at Yamaguchi, Kumamoto, Fukuoka, Utsunomiya, Nagano and North from Yamagata.

MAY.—In this month dry days were experienced generally except at some places in Hokkaido, and Naha where a marked moist weather continued over the greater part of the month.

Rainy weather was experienced frequently in the first decade, while over the

greater part of the month, fair weather continued.

The mean and maximum air temperature below the freezing point were recorded nowhere; the minimum fell below it only in Central Hokkaido.

JUNE.—Wet days were experienced in Central Japan and some northern districts and also at Naha, dry days in Korea Strait and Okhotsk Sea.

It was occasionally rainy, but in the first and middle decades was experienced fair weather generally on the South Coast and in the Southwest.

The mean air temperature rose above 25° at Naha, Miyazaki, Wakayama, Ozaka, Kioto and Gifu; the maximum did not reach 25° at Ishinomaki, Nemuro and Erimo; the minimum rose above 25° at Naha only.

JULY.—Wet days were experienced all over Japan, most marked in Central Parts.

In the first and middle decades we experienced frequent rainy weather in Central and Western Japan, in the last decade a storm raged in the West, though fair weather continued during this decade.

The mean air temperature did not reach 25° at Akita, and in Hokkaido; the maximum was below 25° at Soya and Erimo; the minimum rose above 25° at Naha, on the South and West Coast.

AUGUST.—Wet days were experienced in the West and extreme North.

In the first decade rainy weather was experienced in Western Japan, in the middle decade in the extreme North. Throughout the month fair weather was experienced; except in the first and middle decades two storms passed over the West.

The mean temperature did not reach 25° at all stations in Hokkaido; the maximum was yet below 25° at Erimo; the minimum rose above it at Naha, on the South and West Coast.

SEPTEMBER.—Wet days were experienced generally, most striking in the extreme South and at Naha.

In the middle and last decades rainy weather was experienced occasionally in Central and Western Japan; violent storms occurred in the middle decade and end of the month.

The mean air temperature above 25° was not recorded at Miyako, Aomori and in Hokkaido; the maximum was below it at Suttsu, Soya and Erimo; the minimum rose above it on the whole South and West Coast.

OCTOBER.—Dry days were experienced generally, remarkable in the whole West except in Northern Hokkaido where the moistness was conspicuous.

Fair weather was experienced throughout the month over the greater part of Japan.

The mean air temperature rose above 25° only at Naha and fell below the freezing

point at Kushiro; the maximum temperature fell below 25° at Fushiki and all stations in Hokkaido; the minimum below 0° at Utsunomiya, Nagano, Yamagata, Fukushima, Miyako, Hakodate and in Central Hokkaido.

NOVEMBER.—Wet days were experienced on the Northwest Coast and in Northern Hokkaido, elsewhere dry days which was most prominent in the West.

Rainy weather was experienced in the first and middle decades in the northern districts; occasionally snow fell in the North in the end of the month. In southern Japan continued fair weather was experienced. The mean air temperature fell below the freezing point at Utsunomiya, Nagano, Yamagata, Akita and all stations in Hokkaido; the maximum below it in Central and Northern Hokkaido; the minimum remained above 0° at Naha, Kagoshima, Wakayama, Oita, Choshi and near Noto.

DECEMBER.—Marked wet days were experienced in the region along the Sea of Japan, while considerable dry days were enjoyed on the South Coast.

Fair weather was experienced over the greater part of the month on the South and Southeast Coast, while on the Northwest Coast snow fell occasionally, but least rainy.

The mean air temperature fell below 0° at Tokushima, Utsunomiya, Nagano and north from Yamagata; the maximum below it at Akita and all stations in Hokkaido; the minimum above the freezing point at Naha, Miyazaki and Akamagaseki.

ON THE LOW AND HIGH AREAS OF PRESSURE AND GALES

IN

THE YEAR 1891.

From the studies of tri-daily weathermaps issued by the Observatory we have deduced the tracts of low and high areas of pressure, as shown in the plates XXVII—L. All the documents used in this report refer to the regular telegrams dispatched three times a day by all our meteorological stations; thus the barometric readings are those observed at 6 am, 2 pm or 9 pm, and the directions of gales are given only in eight points.

LOW AREAS OF PRESSURE.

JANUARY.—Seven areas of low barometer passed.

I.—Developed in the Sea of Japan on the 3rd, passed Western and Northern Hokkaido and went to the eastward on the 4th. Lowest Barometer 757 mm.

II.—Coming from the Eastern China Sea on the 4th, crossed Kiushu and the Inland Sea, one branch went up along the Northwest Coast, the other went out to the Pacific, going up off the East Coast. Both joined again near Shiriyasaki on the 5th, going northeastward. L. B. 747 mm.

III.—Formed in the Sea of Japan on the 8th, crossing Tsugaru Strait on the 9th, going eastward. L. B. 747 mm.

IV.—Formed off Noto and Idzu, both branches going north, meeting West of Tsugaru Strait, went up off Western Hokkaido, going northward. L. B. **744** mm.

V.—Passed Tsugaru Strait from the West on the 22nd, entered into the Sea of Okhotsk along the Southeast Coast of Hokkaido on the 23rd. L. B. 751 mm.

VI.—Coming from the Northwest, passed Southwestern Hokkaido on the 24th, traversing Tsugaru Strait, going eastward on the 25th. L. B. 746 mm.

VII.—Developed off Western Kiushu on the 30th, crossed Shikoku and went out into the Pacific on an easterly course on the 31st. L. B. 750 mm.

FEBRUARY.—Six areas of low barometer passed.

I.—Coming from the Eastern China Sea, crossed Kiushu and Shikoku on the 4th and 5th, passed along the Southeast Coast on the 6th, going northeastward on the 7th. L. B. 752 mm.

II.—Formed suddenly off the Northwest Coast crossed Northern Nippon on the 9th, passed to the eastern extremity off Hokkaido on the 10th. L. B. 748 mm.

III.—Came from the Northern Sea of Japan, crossed Northern Hokkaido on the 14th and 15th, disappearing in Okhotsk Sea. Lowest Barometer 754 mm.

IV.—Coming also from the Northern Sea of Japan, passed over Hokkaido on the 16th. L. B. 753 mm.

V.—Came from the Eastern China Sea, went almost parallel to I. L. B. 755 mm.

VI.—Came from the West, travelled over Northern Kiushu and the Inland Sea on the 27th, the Southeast Coast on the 28th, going northeastward in the Pacific. L. B. 741 mm.

MARCH.—Nine areas of low barometer passed.

I.—Coming from the Eastern China Sea on the 3rd, passed along the whole South Coast on the 4th, going northeastward. L. B. 756 mm.

II.—Came also from the Eastern China Sea, travelled along the whole South and East Coast from the 9th to the 11th. L. B. 738 mm.

III.—Passed Korea Strait from the Southwest, crossed Western and Central Nippon on the 13th and the 14th, going eastward. L. B. 754 mm.

IV.—Coming from the Yellow Sea, crossed Southern Korea on the 16th, passed over the Sea of Japan on the 17th, over Northern Hokkaido on the 18th, disappearing in Okhotsk Sea. L. B. 748 mm.

V.—Came from the West, crossed Northern Kiushu and Shikoku, went over the Southeast Coast on the 21st, disappearing off that Coast on the 22nd. L. B. 754 mm.

VI.—Developed in the Northern Sea of Japan, passed over Northern Hokkaido on the 23rd, going in Okhotsk Sea northeastward. L. B. 748 mm.

VII.—Coming from the Eastern China Sea, travelled along the whole South and Southeast Coast on the 28th. L. B. 750 mm.

VIII.—Formed in the Northern Sea of Japan on the 28th, crossed Central Hokkaido on the 29th, disappearing in Okhotsk Sea. L. B. 737 mm.

IX.—Came from the West on the 30th, crossed Northern Hokkaido on the 31st, disappearing in Okhotsk Sea. L. B. 750 mm.

APRIL.—Eight areas of low barometer passed.

I.—Appeared on the Southeast Coast on the 1st, went up northeastward in the Pacific. L. B. 755 mm.

II.—Developed in the Northern Sea of Japan, crossed Northern Hokkaido on the 5th, disappearing in Okhotsk Sea on the 6th. L. B. 755 mm.

III.—Coming from the Eastern Chine Sea, passed along the whole South Coast on the 6th, going northeastward. L. B. 750 mm.

IV.—Came from the West, South of Vladivostok, crossed the Northern Sea of Japan on the 9th, Northern Hokkaido on the 10th, disappearing in the Sea of Okhotsk. L. B. 754 mm.

V.—Formed in the Northern Sea of Japan on the 11th, crossed Hokkaido on the 12th, going southeastward, disappeared in the Pacific. L. B. 748 mm.

V.ª—Coming from the West crossed Northern Kiushu on the 11th, Western Shikoku on the 12th disappearing in the Pacific. Lowest Barometer 756 mm.

VI.—Came from the Eastern China Sea on the 14th, passed Kiushu and along the whole South Coast on the 15th and 16th, going northeastward. L. B. 752 mm.

VI.ª—Formed in the Northern Sea of Japan and crossed Northern Hokkaido on the 16th, disappearing in Okhotsk Sea. L. B. 752 mm.

VII.—Originated in the Northern Sea of Japan and crossed Northern Hokkaido on the 24th, disappearing in the Sea of Okhotsk. L. B. 750 mm.

VIII.—Crossed Kiushu from the West, travelled along the whole South Coast on the 26th, going northeastward. L. B. 757 mm.

MAY.—Eight areas of low barometer passed.

I.—Coming apparently from the Yellow Sea, separated into two branches in the Southern Sea of Japan on the 2nd, one travelled along the Northwest Coast on the 3rd, disappearing in Okhotsk Sea, the other over Western Nippon and along the Southeast Coast on the 3rd, going eastward on the 4th. L. B. 755 mm.

II.—Passed through the Korea Strait and the Sea of Japan on the 4th, Northern Hokkaido on the 5th, disappearing in Okhotsk Sea. L. B. 742 mm.

III.—Came from the Northern Sea of Japan, passed down Hokkaido on the 10th, going southeastward in the Pacific. L. B. 753 mm.

IV.—Appeared in Hokkaido on the 12th, going southeastward in the Pacific on the 13th. L. B. 750 mm.

V.—Took a similar track to the II on the 15th and 16th. L. B. 741 mm.

VI.—Went almost parallel to the III on the 20th and 21st. L. B. 748 mm.

VII.—Coming from the Northern Sea of Japan, crossed Hokkaido on the 25th, disappearing in Okhotsk Sea. L. B. 739 mm.

VIII.—Developed off the Northwest Coast of Hokkaido on the 27th, passed down Hokkaido on the 28th, going southeastward in the Pacific on the 29th. L. B. 748 mm.

JUNE.—Five areas of low barometer passed.

I.—Coming from the West, crossed Kiushu and Shikoku with an easterly course on the 3rd, remained in the Southeast until 6th, travelled Eastern Nippon northeastward and disappeared off the East Coast on the 7th. L. B. 746 mm.

II.—Came from China Coast, separated into two branches in Korea Strait on the 15th, one of them traversed the Sea of Japan along the West Coast on the 16th and 17th; the other crossed Western Nippon and Shikoku on the 15th, went out into the Pacific on the 16th and travelled Central Nippon for connecting the first branch in the Sea of Japan on the 18th. L. B. 747 mm.

III.—Developed off Southwestern Kiushu, crossing Shikoku on the 20th and went into the Pacific eastward on the 22nd. L. B. 751 mm.

IV.—Came from Central Korea, travelled Southern Sea of Japan on the 24th, going

along the West and Northwest Coast on the 25th, went out into the Okhotsk Sea.
Lowest Barometer **746** mm.

V^a—Came from the West and gone up northward along the Eastern Korea Coast on the 30th. L. B. 756 mm.

V^b—Came from the West, crossed Northern Kiushu and disappeared in Southern Sea of Japan on the 30th. L. B. 754 mm.

JULY.—Ten areas of low barometer passed.

I.—Came from the Eastern China Sea; passed through Korea Strait on the 2nd and 3rd, went up the Sea of Japan northward on the 3rd and 4th. L. B. 751 mm.

II.—Coming also from the Eastern China Sea on the 4th, traversed nearly the whole length of Japan on the 4th and 5th, disappearing in Hokkaido. L. B. 750 mm.

III.—Developed near Shikoku on the 5th, kept in the Southeast from the 5th to the 8th. L. B. 751 mm.

IV.—Coming from the Eastern China Sea, passed through Korea Strait, the Sea of Japan on the 10th and 11th, over Southern Hokkaido on the 12th, going eastward.
L. B. 748 mm.

V.—Appeared near Vladivostok on the 14th and 15th. L. B. 753 mm.

VI.—Crossed the Southern Sea of Japan and Hokkaido from the West on the 18th, passed into the Pacific on the 19th, going eastward. L. B. **746** mm.

VII.—Appeared in Korea Strait and crossed Southern Nippon on the 10th.
L. B. 755 mm.

VIII.—Coming from the West on the 20th, travelled along the west and part of the Northwest Coast on the 21st, crossed Tsugaru Strait on the 22nd, disappearing Southeast of Hokkaido on the same date. L. B. 755 mm.

IX.—Coming from the West North of Vladivostok and went almost parallel to VI on the 24th and 25th. L. B. 747 mm (Vladivostok)

X.—Developed in the Northern Sea of Japan and passed over Hokkaido on the 28th, going in the Pacific eastward on the 29th. L. B. 750 mm.

AUGUST.—Six areas of low barometer passed.

I.—Came from the Eastern China Sea on the 2nd, traversing Korea Strait and the Sea of Japan on the 3rd and 4th, disappeared appearently in the Sea of Okhotsk.
L. B. 741 mm. (Vladivostok)

II.—Passed North of Vladivostok from the West and Northern Sea of Japan on the 10th, Northern Hokkaido on the 11th, going eastward in the Pacific. L. B. 750 mm.

III.—Coming from the Pacific traversed Eastern Shikoku and Western Nippon on the 10th, entered the Sea of Japan and passed over Northern Nippon on the 17th, going northeastward. L. B. **736** mm.

IV.—Developed in the Northern Sea of Japan on the 18th, crossed Hokkaido on the 18th and 19th, going eastward in the Pacific. L. B. 750 mm.

V.—Travelling along the West Coast, passed Central Nippon into the Southeast Coast on the 21st, disappearing near it on the 22nd. Lowest Barometer 754 mm.

VI.—Went almost parallel to the II on the 28th and 29th, coming from the South of Vladivostok. L. B. 755 mm.

SEPTEMBER.—Nine areas of low barometer passed.

I.—Crossed the Northern Sea of Japan and Northern Hokkaido from the West on the 1st, going eastward in the Pacific. L. B. 754 mm.

II.—Crossed the Northern Sea of Japan and Central Hokkaido on the 5th, travelling southeastward in the Pacific. L. B. 745 mm.

III.—Came from the West of Vladivostok on the 6th, crossed the Northern Sea of Japan and Northern Hokkaido, went out in the Sea of Okhotsk on the 7th. L. B. 753 mm.

IV.—Coming from the Eastern China Sea, passed through Korea Strait on the 8th, going the Sea of Japan crossed Northern Nippon on the 9th. L. B. 753 mm.

V.—Coming also from the Eastern China Sea on the 9th, passing over Southern Korea traversed the Sea of Japan on the 10th. L. B. 743 mm.

VI.—Came from the Pacific Southeast of Okinawa below the Latitude 26° on the 12th, passed over North of Oshima on the 13th, Western Kiushu early on the 14th, traversed the Sea of Japan on the 14th, crossed Northern Hokkaido and Southern Okhotsk Sea on the 15th; thence going over the Northern Part of Kurile Islands northeastward, disappearing in Behring Sea. L. B. **715** mm.

VII.—Crossed Northern Kiushu, the Inland Sea and Central Nippon from the Eastern China Sea on the 21st, disappeared apparently in Southeastern Nippon on the 22nd. L. B. 754 mm.

VIII.—Developed in the Northern Sea of Japan and crossed Tsugaru Strait, going eastward in the Pacific on the 28th. L. B. 757 mm.

IX.—Coming from the Pacific on the 29th, reached Kii peninsula early on the 30th, traversed Southeastern Nippon, passed out into the Pacific on the 30th, going northeastward. L. B. 738 mm.

OCTOBER.—Seven areas of low barometer passed.

I.—Coming from the West crossed the Northern Sea of Japan and Northern Hokkaido on the 8th, disappearing in Okhotsk Sea. L. B. 749 mm.

I^a—Went up along the whole East Coast on the 8th, going Northeastward. L. B. **741** mm.

II.—Travelled Eastern Hokkaido from the Northwest on the 15th, going southeastward in the Pacific. L. B. 757 mm.

III.—Came from the Northern Sea of Japan, crossed Northeastern Hokkaido on the 18th. L. B. 755 mm.

IV.—Went almost similar to the above on the 20th and 21st. L. B. 756 mm.

V.—Developed in the Northern Sea of Japan, crossed Northern Hokkaido on the 23rd, going eastward. Lowest Barometer 750 mm.

VI.—Formed also in the Northern Sea of Japan, passed over Northern Hokkaido on the 26th, disappearing in Okhotsk Sea. L. B. 757 mm.

VII.—Coming from the Eastern China Sea on the 27th, travelled along the whole South Coast on the 28th, went up off the East Coast on the 29th, going northeastward in the Pacific. L. B. 749 mm.

NOVEMBER.—Eight areas of low barometer passed.

I.—Developed in the Northern Sea of Japan and crossed Northern Hokkaido on the 1st, disappearing in Okhotsk Sea. L. B. 751 mm.

II.—Coming from the West, South of Vladivostok, crossed the Northern Sea of Japan on the 4th, passed over Northern Hokkaido on the 5th, disappearing in Okhotsk Sea. L. B. **745** mm.

III.—Coming from Siberia, crossed Northern Hokkaido on the 9th, going eastward North of Nemuro. L. B. 755 mm.

IV.—Came from the Eastern China Sea, passed over Northwestern Kiushu, Western Nippon and Noto on the 10th, Northern Nippon on the 11th, going in the Pacific northeastward. L. B. 751 mm.

V.—Coming from the Eastern China Sea, travelled off the whole South Coast on the 12th and 13th, going northeastward. L. B. 761 mm.

VI.—Originated in the Northern Sea of Japan, crossed Northern Hokkaido on the 18th, going eastward. L. B. 747 mm.

VII.—Came from the Southwest, travelled far off the South Coast on the 23rd, passing near the extreme Southeast of Nippon went up northward to the East of Nemuro on the 24th, kept there on the 25th and 26th. L. B. 749 mm.

VIII.—Went almost parallel to the VI on the 30th November and 1st December. L. B. 752 mm.

DECEMBER.—Five areas of low barometer passed.

I.—Coming from the Eastern China Sea, passed through the Korea Strait, went up the Southern Sea of Japan on the 3rd, joined by a branch area in Northern Nippon coming up from the Southeast on the 4th; thence travelling northeastward along the Southeastern Hokkaido. L. B. **740** mm.

II.—Came from the Eastern China Sea, passed the Southern Sea of Japan on the 8th, crossed Northern Nippon on the 9th, going eastward. L. B. 750 mm.

III.—Passed near Vladivostok from the West on the 12th, crossed the Northern Sea of Japan and Northern Hokkaido on the 13th, going northeastward in the Sea of Okhotsk. L. B. 752 mm.

IV.—Went almost parallel to the III from the 15th to the 18th. L. B. 752 mm.

V.—Came from the Northern Sea of Japan, crossed Hokkaido on the 31st. L. B. 748 mm.

HIGH AREAS OF PRESSURE.

JANUARY.—Five areas of high barometer appeared.

I.—Kept in Korea Strait on the 1st and 2nd, disappeared in Shikoku on the 2nd. Highest Barometer 772 mm.

II.—Appeared in Central Nippon and disappeared on the 4th. H. B. 767 mm.

III.—Coming from the West entered Central Nippon on the 22nd, disappeared on the same day. H. B. 768 mm.

IV.—Kept in Korea on the 26th, near Noto on the 27th, in Northern Hokkaido on the 28th and 29th, going northeastward. H. B. 773 mm.

V.—Developed on the Northwest Coast, kept here on the 29th and 30th, was off Suttsu on the 31st, going northeastward. H. B. 776 mm.

FEBRUARY.—Three areas of high barometer appeared.

I.—Was near Korea Strait on the 2nd, passed Northern Nippon and Hokkaido from the 3rd to the 6th. H. B. 775 mm.

II.—Kept over and near Southern Korea from the 7th to the 13th. H. B. 775 mm.

III.—Was in Southern Korea on the 18th and 19th, in Central Japan on the 20th and 21st. H. B. 775 mm.

MARCH.—Five areas of high barometer appeared.

I.—Was in Southern Korea, passed the Sea of Japan on the 2nd, crossed Northern Nippon and went to the northeastern extremity of Hokkaido on the 3rd. H. B. 775 mm.

II.—Was in Central Korea on the 5th, in the Northern Sea of Japan on the 6th and 7th, crossed Northern Nippon on the 8th, traversed Eastern Hokkaido on the 9th and 10th. H. B. 770 mm.

III.—Kept near Southern Korea on the 14th and 15th, thence took a similar course to I on the 16th and 17th. H. B. 772 mm.

IV.—Was in the extreme West on the 18th, passed the Sea of Japan on the 19th, crossed Northern Nippon on the 20th. H. B. 772 mm.

V.—Was in Korea Strait on the 24th, in Central Japan on the 25th. H. B. 770 mm.

APRIL.—Five areas of high barometer appeared.

I.—Was in Korea on the 2nd, in the Southern Sea of Japan on the 3rd, Northern Nippon on the 4th, entered the Pacific on the 5th. H. B. 773 mm.

II.— Appeared in the Sea of Japan on the 14th, passed Hokkaido on the 15th. H. B. 771 mm.

III.—Was in the Sea of Japan on the 19th, kept in Central Japan from the 20th to the 23rd. H. B. 770 mm.

IV.—Appeared in Korea on the 24th, passed the Sea of Japan on the 25th, crossed Central Nippon and went eastward in the Pacific. H. B. 771 mm.

V.—Was near Central Korea on the 27th; crossed the Sea of Japan and Northern

Nippon on the 28th and 29th, disappearing in Okhotsk Sea on the 30th.
Highest Barometer 768 mm.

MAY.—Four areas of high barometer appeared.

I.—Came from the West, passed Southern Japan on the 1st and 2nd, going north-eastward in the Pacific on the 3rd. H. B. **768** mm.

II.—Coming from the extreme West on the 6th, crossed Central Japan on the 7th and 8th, going eastward. H. B. 765 mm.

III.—Kept in Western Japan from the 18th to the 21st, crossed Central Japan on the 21st, disappearing on the South Coast on the same day. H. B. 762 mm.

IV.—Went almost parallel to the II from the 30th to the 2nd June. H. B. 766 mm.

JUNE.—Only one area of high barometer appeared.

Came from the West, travelled along the South, Southeast and East Coast on the 26th to the 30th. H. B. 762 mm.

JULY.—One area of high barometer was noted.

Was almost stationary on the South Coast from 11th to the 19th. H. B. 761 mm.

AUGUST.—Four areas of high barometer appeared.

I.—Kept off the Southeast and East Coast from the 1st to the 3rd. H. B. 762 mm.

II.—Appeared in Northern Korea and passed over the Southern Sea of Japan on the 4th, crossed Northern Nippon on the 5th, went out into the Pacific on the 6th. H. B. 763 mm.

III.—Appeared near Southern Korea, passed over the Sea of Japan and Northern Nippon into the eastern extremity of Hokkaido on the 20th and 21st. H. B. 764 mm.

IV.—Kept over Southern Korea from the 24th to the 26th, crossed Northern Nippon on the 27th, going eastward in the Pacific on the 28th. H. B. **765** mm.

SEPTEMBER.—Three areas of high barometer were noted.

I.—Was noted in Korea and the Sea of Japan on the 2nd, crossed Northern Nippon on the 3rd, going eastward in the Pacific on the 4th. H. B. 765 mm.

II.—Was in the Northern Sea of Japan on the 19th, crossed Hokkaido on the 20th. H. B. **771** mm.

III.—Was in Korea on the 24th, in the Southern Sea of Japan on the 25th, in Northern Nippon on the 26th, off the East Coast on the 27th. H. B. 769 mm.

OCTOBER.—Five areas of high barometer appeared.

I.—First appeared in Korea, crossed the Sea of Japan and Northern Nippon from the 3rd to the 6th. H. B. 768 mm.

II.—Went parallel to the I from the 12th to the 14th. H. B. 768 mm.

III.—Was in Southern Korea on the 16th, kept in Central Japan on the 17th

and 18th, turning its course to the southwestward disappeared.

Highest Barometer **771** mm.

IV.—Went similar to the III from the 24th to the 27th. H. B. 767 mm.

V.—Was in Southern Korea on the 30th, in Central Japan on the 31st, where it disappeared. H. B. 768 mm.

NOVEMBER.—Six areas of high barometer were noted.

I.—Came from Southern Korea, crossed Sea of Japan and Central Nippon on the 3rd and 4th, went northeastward near Nemuro on the 5th. H. B. 767 mm.

II.—Came from the extreme West, travelled along the whole West Coast on the 7th, passed Northern Nippon and turned back its course on the 8th, disappearing in the South on the 9th. H. B. 769 mm.

III.—Came from Southern Korea on the 11th, travelled the Sea of Japan and Northern Nippon on the 12th, disappearing in Hokkaido on the 13th. H. B. 768 mm.

IV.—Kept in Southern Korea and the Southern Sea of Japan on the 14th and 15th.

H. B. 769 mm.

V.—Coming from the extreme West on the 19th, passed the Southern Sea of Japan on the 20th, traversed Northern Nippon and Hokkaido from the 21st to 23rd.

H. B. 770 mm.

VI.—Was almost stationary in Southern Korea from the 24th to the 29th, disappearing in Western Japan on the 30th. H. B. **778** mm.

DECEMBER.—Five areas of high barometer appeared.

I.—Was in Southern Korea on the 1st, in Northern Nippon on the 2nd and 3rd.

H. B. 774 mm.

II.—Was nearly stationary in Southern Korea on the 6th, passed over Northern Nippon on the 7th, went up into the Southeast of Hokkaido on the 8th. H. B. **776** mm.

III.—Kept in Southern Korea from the 16th to the 18th, in Nippon on the 19th and 20th. H. B. 774 mm.

IV.—Appeared immediately after the III in Central Korea and went eastward crossing Northern Nippon on the 21st. H. B. 771 mm.

V.—Kept in the extreme West from the 23rd to the 28th, in Central Japan on the 29th and 30th. H. B. **776** mm.

DAYS WITH GALES.

JANUARY.—Gales were observed 260 times or 7.0 % of all observations.

They were distributed as follows:—

Direction	NE	E	SE	S	SW	W	NW	N	Total
No. of Obs.	8	2	0	5	11	77	**129**	28	260
Percentage	3	1	0	2	4	29	**50**	11	100

Days of the month with number of gales observed.

1st 13, 2nd 13, 3rd 2, 4th 1, 5th 12, 6th 14, 7th 4, 8th 2, 9th 20, 10th 17, 11th 8, 12th 7, 13th 2, 14th 7, 15th 13, 16th 6, 17th 9, 18th 6, 19th 8, 20th 4, 21st 6, 22nd 2, 23rd 12, 24th 18, 25th 14, 26th 14, 27th 5, 28th 4, 29th 3, 30th 8, 31st 6. Sum 260

FEBRUARY.—Gales were observed 115 times or 3.3 % of all observations.

They were distributed as follows:—

Direction	NE	E	SE	S	SW	W	NW	N	Total
No. of Obs.	10	1	0	5	6	27	**37**	29	115
Percentage	9	1	0	4	5	24	**32**	25	100

Days of the month with number of gales observed.

1st 2, 2nd 3, 4th 2, 5th 4, 6th 10, 7th 5, 9th 5, 10th 15, 11th 14, 12th 3, 13th 1, 14th 6, 15th 3, 16th 7, 17th 6, 18th 6, 19th 3, 20th 2, 22nd 3, 24th 7, 25th 1, 27th 4, 28th 3. Sum 115

MARCH.—Gales were observed 195 times or 5.0 % of all observations.

They were distributed as follows:—

Direction	NE	E	SE	S	SW	W	NW	N	Total
No. of Obs.	7	9	8	42	21	**57**	26	25	195
Percentage	4	5	4	21	11	**29**	13	13	100

Days of the month with number of gales observed.

1st 7, 2nd 2, 3rd 2, 4th 4, 6th 8, 7th 7, 8th 1, 10th 3, 11th 12, 12th 20, 13th 2, 14th 3, 15th 4, 16th 5, 17th 18, 18th 15, 19th 3, 21st 6, 22nd 3, 23rd 19, 24th 3, 26th 5, 27th 1, 28th 3, 29th 12, 30th 5, 31st 7. Sum 195

APRIL.—Gales were observed 167 times or 4.4 % of all observations.

They were distributed as follows:—

Direction	NE	E	SE	S	SW	W	NW	N	Total
No. of Obs.	7	13	7	**41**	15	24	26	34	167
Percentage	4	8	4	**25**	9	14	16	20	100

Days of the month with number of gales observed.

1st 2, 2nd 1, 3rd 1, 4th 2, 5th 8, 6th 8, 7th 8, 9th 4, 10th 4, 11th 1, 12th 5, 13th 1, 14th 16, 15th 14, 16th 9, 17th 6, 18th 3, 19th 5, 20th 2, 21st 1, 22nd 6, 23rd 10, 24th 28, 25th 7, 26th 2, 27th 4, 28th 3, 30th 6. Sum 167

MAY.—Gales were observed 177 times or 4.3 % of all observations.

They were distributed as follows:—

Direction	NE	E	SE	S	SW	W	NW	N	Total
No. of Obs.	0	2	7	**68**	51	21	20	8	177
Percentage	0	1	4	**39**	29	10	12	5	100

Days of the month with number of gales observed.

1st 4, 2nd 4, 3rd 5, 4th 3, 5th 34, 6th 15, 7th 6, 8th 7, 9th 3, 10th 4, 11th 1, 12th 1, 13th 5,

14th 2, 15th 6, 16th 20, 17th 6, 18th 9, 19th 7, 20th 7, 21st 4, 22nd 3, 24th 5, 25th 3, 27th 2, 28th 7, 29th 3, 30th 1. Sum 177

JUNE.—Gales were observed 122 times or 3.2 % of all observations.

They were distributed as follows:—

Direction	NE	E	SE	S	SW	W	NW	N	Total
No. of Obs.	6	15	14	**64**	7	10	4	2	122
Percentage	5	12	12	**52**	6	8	3	2	100

Days of the month with number of gales observed.

1st 2, 2nd 4, 3rd 11, 4th 7, 5th 9, 6th 5, 7th 3, 8th 2, 10th 1, 11th 3, 14th 3, 15th 12, 16th 12, 17th 4, 18th 4, 19th 3, 20th 3, 21st 5, 22nd 4, 23rd 3, 24th 7, 25th 5, 26th 4, 27th 2, 28th 1, 30th 3. Sum 122

JULY.—Gales were observed 70 times or 1.8 % of all observations.

They were distributed as follows:—

Direction	NE	E	SE	S	SW	W	NW	N	Total
No. of Obs.	1	1	3	**47**	5	3	6	4	70
Percentage	1	1	4	**67**	7	4	9	6	99

Days of the month with number of gales observed.

1st 5, 2nd 4, 3rd 4, 4th 4, 7th 1, 8th 4, 9th 3, 10th 3, 11th 9, 12th 2, 16th 1, 18th 1, 19th 5, 20th 1, 21st 5, 22nd 1, 24th 4, 25th 2, 26th 2, 27th 3, 29th 1, 30th 2, 31st 3. Sum 70

AUGUST.—Gales were observed 100 times or 2.5 % of all observations.

They were distributed as follows:—

Direction	NE	E	SE	S	SW	W	NW	N	Total
No. of Obs.	3	8	11	**49**	17	7	2	3	100
Percentage	3	8	11	**49**	17	7	2	3	100

Days of the month with number of gales observed.

1st 3, 2nd 4, 3rd 14, 4th 12, 5th 3, 9th 3, 14th 3, 15th 1, 16th 17, 17th 13, 18th 6, 19th 6, 20th 4, 21st 3, 22nd 2, 28th 2, 29th 1, 31st 3. Sum 100

SEPTEMBER.—Gales were observed 117 times or 3.0 % of all observations.

They were distributed as follows:—

Direction	NE	E	SE	S	SW	W	NW	N	Total
No. of Obs.	8	13	9	**44**	15	10	8	10	117
Percentage	7	11	8	**38**	13	8	7	8	100

Days of the month with number of gales observed.

1st 2, 2nd 1, 4th 2, 5th 7, 6th 1, 9th 1, 10th 6, 11th 3, 12th 1, 13th 7, 14th 45, 15th 17, 18th 1, 21st 3, 23rd 3, 27th 3, 30th 14. Sum 117

OCTOBER.—Gales were observed 86 times or 2.2 % of all observations.

They were distributed as follows:—

Direction	NE	E	SE	S	SW	W	NW	N	Total
No. of Obs.	4	1	3	12	1	18	**32**	15	86
Percentage	5	1	4	14	1	21	**37**	17	100

Days of the month with number of gales observed.

1st 3, 2nd 1, 3rd 1, 4th 1, 6th 1, 7th 3, 8th 4, 9th 14, 10th 4, 11th 3, 12th 2, 15th 3, 16th 6, 17th 3, 20th 1, 21st 1, 22nd 4, 23rd 3, 24th 4, 25th 2, 26th 4, 27th 2, 28th 5, 29th 4, 30th 6, 31st 1. Sum 86

NOVEMBER.—Gales were observed 151 times or 3.9 % of all observations.

They were distributed as follows:—

Direction	NE	E	SE	S	SW	W	NW	N	Total
No. of Obs.	1	0	1	13	10	46	**64**	16	151
Percentage	1	0	1	8	7	30	**42**	11	100

Days of the month with number of gales observed.

1st 7, 2nd 5, 4th 3, 5th 8, 6th 7, 7th 1, 8th 1, 9th 2, 10th 2, 11th 3, 12th 2, 13th 3, 14th 2, 15th 2, 16th 4, 17th 1, 18th 7, 19th 18, 20th 8, 21st 7, 23rd 2, 24th 15, 25th 12, 26th 16, 27th 9, 28th 3, 29th 1. Sum 151

DECEMBER.—Gales were observed 216 times or 5.4 % of all observations.

They were distributed as follows:—

Direction	NE	E	SE	S	SW	W	NW	N	Total
No. of Obs.	2	6	4	29	15	**93**	62	5	216
Percentage	1	3	2	13	7	**43**	29	2	100

Days of the month with number of gales observed.

1st 16, 2nd 3, 3rd 1, 4th 29, 5th 15, 6th 6, 7th 5, 8th 9, 9th 8, 10th 5, 11th 4, 12th 2, 13th 7, 14th 4, 15th 6, 16th 6, 17th 14, 18th 16, 19th 2, 20th 4, 21st 7, 22nd 2, 23rd 7, 24th 2, 27th 2, 28th 1, 30th 4, 31st 29. Sum 216

VERIFICATIONS OF INDICATIONS AND STORM WARNINGS IN THE YEAR 1891.

The indications of weather and wind direction for 24 hours in advance are issued every day at 10 pm separately to all the meteorological districts and verified by comparing the tri-daily weathermaps published in this period.

The storm warnings are considered as justly verified whenever the wind force reaches 4 (scale 0–6) at warned places or in a distance within 100 kilometers, the period covered by the warnings being 48 hours from the time of its issue.

VERIFICATIONS OF INDICATIONS.

JANUARY.—Indications were issued 28 times for Dts. I, II, 29 times for Dts. III, VII, 31 times for Dts. IV–VI.

The percentage of indications was as follows:—

Dts.	WIND				WEATHER			
	Justified	Partly Justified	Not Justified	% of Verifications	Justified	Partly Justified	Not Justified	% of Verifications
1	22	4	2	86	21	4	3	79
2	23	5	0	91	22	3	3	84
3	25	3	1	92	23	2	4	83
4	28	1	2	92	23	6	2	84
5	25	2	4	84	27	2	2	90
6	26	3	2	89	24	1	6	79
7	22	4	4	77	27	1	2	89
Mean	24	3	2	87	24	3	3	84
General	85							

FEBRUARY.—Indications were issued 27 times for Dts. I–III and 28 times for Dts. IV–VII.

The percentage of verifications was as follows:—

1	20	3	4	80	21	2	4	81
2	20	4	3	81	20	3	4	80
3	22	4	1	89	17	6	4	74
4	23	4	1	89	18	6	4	75
5	16	6	6	68	21	4	3	82
6	21	3	4	80	21	3	4	80
7	20	4	4	79	25	2	1	93
Mean	20	4	3	81	20	4	3	81
General	81							

MARCH.—Indications were issued 27 times for Dts. I–III, 28 times for Dt. VII, 30 times for Dt. V and 31 times for Dts. IV, VI.

The percentage of verifications was as follows:—

Dts.	WIND				WEATHER			
	Justified	Partly Justified	Not Justified	% of Verifications	Justified	Partly Justified	Not Justified	% of Verifications
1	22	3	2	87	24	2	1	93
2	23	3	1	91	23	2	2	89
3	24	2	1	93	25	0	2	93
4	19	8	4	74	24	5	2	85
5	22	2	6	77	22	5	3	82
6	24	3	4	82	24	3	4	82
7	20	2	6	75	22	4	2	86
Mean	22	3	3	83	23	3	2	87
General	85							

APRIL.—Indications were issued 30 times for all Dts. (I–VII).

The percentage of verifications was as follows:—

1	19	6	5	73	20	8	2	80
2	21	7	2	82	23	5	2	85
3	22	4	4	80	22	6	2	83
4	21	4	5	77	19	6	5	73
5	19	6	5	73	20	3	7	72
6	17	10	3	73	17	6	7	67
7	22	4	4	80	21	6	3	80
Mean	20	6	4	77	20	6	4	77
General	77							

MAY.—Indications were issued 28 times for Dts. I–III, 31 times for Dts. IV–VII.

The percentage of verifications was as follows:—

1	22	3	3	84	23	2	3	86
2	18	6	4	75	25	3	0	95
3	18	7	3	77	24	1	3	87
4	22	6	3	81	25	4	2	87
5	19	7	5	73	25	5	1	89
6	20	8	3	77	26	3	2	89
7	20	4	7	71	22	7	2	82
Mean	20	6	4	77	24	4	2	88
General	82							

JUNE.—Indications were issued 28 times for Dts. I–III, 30 times for Dts. IV–VII.

The percentage of verifications was as follows:—

1	19	7	2	80	23	2	3	86
2	19	6	3	79	22	2	4	83
3	18	9	1	80	22	4	2	86
4	24	4	2	87	26	1	3	88
5	21	5	4	78	23	4	3	83
6	20	7	3	78	22	6	2	83
7	23	4	3	83	20	7	3	78
Mean	21	6	3	81	23	4	3	84
General	82							

JULY.—Indications were issued 31 times for all Dts. (I–VII).

The percentage of verifications was as follows:—

Dts.	WIND				WEATHER			
	Justified	Partly Justified	Not Justified	% of Verifications	Justified	Partly Justified	Not Justified	% of Verifications
1	25	5	1	89	16	11	4	69
2	23	7	1	85	16	9	6	66
3	23	7	1	85	15	6	10	58
4	25	5	1	89	17	12	2	74
5	20	11	0	82	16	7	8	63
6	18	11	2	76	21	8	2	81
7	16	8	7	64	19	11	1	79
Mean	21	8	2	81	17	9	5	70
General	75							

AUGUST.—Indications were issued 29 times for Dts. I–III, 31 times for Dts. IV–VII.

The percentage of verifications was as follows:—

1	19	8	2	79	20	3	6	74
2	19	7	3	78	21	2	6	76
3	17	8	4	72	21	3	5	78
4	19	10	2	77	25	3	3	85
5	23	8	0	87	23	6	2	84
6	20	7	4	76	24	5	2	85
7	20	7	4	76	18	8	5	71
Mean	20	8	3	78	22	4	4	79
General	78							

SEPTEMBER.—Indications were issued 30 times for Dt. IV, 29 times for Dts. I, II, III, V and VI, 28 times for Dt. VII.

The percentage of verifications was as follows:—

1	14	12	3	69	19	5	5	74
2	16	11	2	74	20	5	4	78
3	14	12	3	69	22	3	5	81
4	17	10	3	73	23	4	3	83
5	19	7	3	78	24	2	3	86
6	20	9	0	84	22	4	3	83
7	19	7	2	78	19	3	6	73
Mean	17	10	2	75	21	4	4	80
General	77							

OCTOBER.—Indications were issued 30 times for Dts. I–III, 31 times for Dts. IV–VII.

The percentage of verifications was as follows:—

1	13	16	1	70	24	2	4	83
2	21	8	1	83	24	3	3	85
3	14	15	1	72	24	2	4	83
4	16	13	2	73	25	4	2	87
5	15	11	5	66	27	3	1	92
6	20	10	1	81	29	1	1	95
7	19	8	4	74	24	2	5	80
Mean	17	12	2	74	25	2	3	86
General	80							

NOVEMBER.—Indications were issued 30 times for all Dts. (I–VII).

The percentage of verifications was as follows:—

Dts.	WIND				WEATHER			
	Justified	Partly Justified	Not Justified	% of Verifications	Justified	Partly Justified	Not Justified	% of Verifications
1	26	2	2	90	23	2	5	80
2	22	6	2	83	23	3	4	82
3	23	5	2	85	20	3	7	72
4	23	4	3	83	23	2	5	80
5	17	11	2	75	26	2	2	90
6	22	4	4	80	22	3	5	78
7	23	5	2	85	18	7	5	72
Mean	22	5	2	83	22	3	5	79
General	81							

DECEMBER.—Indications were issued 31 times for all Dts. (I–VII).

The percentage of verifications was as follows:—

1	24	4	3	84	26	0	5	84
2	23	5	3	82	25	1	5	82
3	20	8	3	77	25	2	4	84
4	22	9	0	85	26	1	4	85
5	23	5	3	82	23	5	3	82
6	22	8	1	84	26	1	4	85
7	25	4	2	87	25	3	3	85
Mean	23	6	2	83	25	2	4	84
General	83							

VERIFICATIONS OF STORM WARNINGS.

JANUARY.—Warnings were issued on the 1st, 3rd, 4th, 5th, 7th, 9th, 11th, 14th, 16th, 18th, 19th, 20th, 22nd, 24th, 26th and 30th.

Of the 316 warnings
215 were justified
61 partly justified
40 not justified.

Adding one half of the partly justified warnings to the successes, one half to the failures, the percentage of verifications of warnings was 78.

FEBRUARY.—Warnings were issued on the 2nd, 4th, 5th, 6th, 9th, 11th, 13th, 14th, 15th, 17th, 20th, 24th and 27th.

Of the 246 warnings
142 were justified
52 partly justified
52 not justified.

Adding on half of the partly justified warnings to the successes, one half to the failures, the percentage of verifications of warnings was 68.

MARCH.—Warnings were issued on the 3rd, 4th, 5th, 6th, 10th, 12th, 14th, 16th, 17th, 21st, 23rd, 26th, 28th and 30th.

Of the 233 warnings
172 were justified
38 partly justified
23 not justified.

Adding one half of the partly justified warnings to the successes, one half to the failures, the percentage of verifications of warnings was 82.

APRIL.—Warnings were issued on the 5th, 6th, 7th, 11th, 12th, 14th, 16th, 18th, 23rd, 24th and 27th.

Of the 175 warnings
121 were justified
32 partly justified
22 not justified.

Adding one half of the partly justified warnings to the successes, one half to the failures, the percentage of verifications of warnings was 78.

MAY.—Warnings were issued on the 2nd, 4th, 6th, 7th, 8th, 10th, 15th, 25th and 27th.

Of the 145 warnings
95 were justified
25 partly justified
25 not justified.

Adding one half of the partly justified warnings to the successes, one half to the failures, the percentage of verifications of warnings was 74.

JUNE.—Warnings were issued on the 2nd, 3rd, 5th, 11th, 14th, 15th, 24th and 29th.

Of the 141 warnings
96 were justified
30 partly justified
15 not justified.

Adding one half of the partly justified warnings to the successes, one half to the failures, the percentage of verifications of warnings was 79.

JULY.—Warnings were issued on the 3rd, 6th, 10th, 18th and 24th.

Of the 75 warnings
32 were justified
19 partly justified
24 not justified.

Adding one half of the partly justified warnings to the successes, on half to the failures, the percentage of verifications of warnings was 56.

AUGUST.—Warnings were issued on the 1st, 2nd, 3rd, 10th, 15th, 17th, 21st and 28th.

Of the 129 warnings
91 were justified
21 partly justified
17 not justified.

Adding one half of the partly justified warnings to the successes, one half to the failures, the percentage of verifications of warnings was 79.

SEPTEMBER.—Warnings were issued on the 1st, 4th, 7th, 8th, 9th, 10th, 12th, 13th, 15th, 20th, 22nd, 25th, 28th, 29th and 30th.

Of the 238 warnings
131 were justified
39 partly justified
68 not justified.

Adding one half of the partly justified warnings to the successes, one half to the failures, the percentage of verifications of warnings was 63.

OCTOBER.—Warnings were issued on the 8th, 23rd and 26th.

Of the 34 warnings
24 were justified
2 partly justified
8 not justified.

Adding one half of the partly justified warnings to the successes, one half to the failures, the percentage of verifications of warnings was 74.

NOVEMBER.—Warnings were issued on the 1st, 5th, 10th, 11th, 15th, 18th, 24th, 26th and 30th.

Of the 105 warnings
86 were justified
9 partly justified
10 not justified.

Adding one half of the partly justified warnings to the successes, one half to the failures, the percentage of verifications of warnings was 86.

DECEMBER.—Warnings were issued on the 1st, 3rd, 4th, 8th, 12th, 13th, 15th, 17th, 20th, 30th and 31st.

Of the 162 warnings
121 were justified
29 partly justified
12 not justified.

Adding one half of the partly justified warnings to the successes, one half to the failures, the percentage of verifications of warnings was 84.

ON THE PRECIPITATION

IN

THE YEAR 1891.

The importance of meteorological observations has been more widely recognized by the public than it had been in former years. This fact is clearly shown by the steady development in the observation of the amount of precipitation. In this year, 1891, reports of the observations of precipitation have been sent from 327 stations, thus showing an increase of 125 stations compared to the last year.

In the present papers, these reports are published in a compact form as we did last year. One thing which materially differs from the last report, is that the stations are classified into several groups according to basin systems to which they belong. The amount of precipitation having most intimate connections with water-works, it is rational to group the pluviometric stations according to basin systems of large rivers; but, owing to the deficiency of the number of stations, we can not at present effect such divisions, and are obliged to content with the following seven divisions:—

I. Western Sea—western coast of Kiushu;

II. Southern Sea—the coast facing to the Pacific from Kiushu to Choshi;

III. Eastern Sea—eastern coast from Choshi to Nemuro in Hokkaido;

IV. Inland Sea—

V. Sea of Japan—the coast of the Sea of Japan extending from northern part of Kiushu to the Cape of Soya;

VI. Tsugaru Strait—

VII. Okhotsk Sea—

The distribution of precipitation over Japan in each month and the year will be seen in a glance on plates LI—LIV; the amount of, and the number of days with, precipitation in each station being given in Tables I—III.

GENERAL OUTLINE ON THE PRECIPITATION.

THE WHOLE YEAR.—Since, in some of our stations, observations have not been continued for the whole year, so we can not speak precisely about the amount of precipitation. However, referring to the observed amounts as given in the Tables I—II, the maximum values of the annual, the monthly and the daily amounts of precipitation are noted in the following table.

Divisions		Annual Maximum			Monthly Maximum				Daily Maximum				
		Amount mm	Station	No. of Station	Amount mm	Station	No. of Station	Month	Amount mm	Station	No. of Station	Day	Month
Western Sea		1088	Nagasaki	4	590	Takase	7	July	263	Osesaki	1	13	July
Southern Sea		2841	Taguchi	66	887	Owashi	14	Sept.	241	Takase	33	5	Aug.
Eastern Sea		1283	Miyako	29	480	Nakamura	5	June	152	Fukushima	13	30	Sept.
Inland Sea	S. Coast	1875	Hesaki	1	611	Hesaki	1	July	154	Hesaki	1	22	July
	N.Coast	2254	Hongo	20	546	Nishisuye	3	June	197	Yokoyama	18	21	July
Sea of Japan		3254	Itsugahara	7	1152	Itsugahara	7	July	293	Eboshijima	1	22	July
Tsugaru Strait		2143	Yesan	11	564	Yesan	11	July	101	Goshogawara	3	5	July
Okhotsk Sea		659	Soya	1	200	Soya	1	Oct.	48	Soya	1	23	Oct.

The maximum amount in this year is 3254 mm, that observed at Itsugahara, 2841 mm at Taguchi and 2828 mm at Yawata are next to it. Of the monthly maxima, we have 1152 mm at Itsugahara in July and 887 mm at Owashi in September; and the daily maxima are 352 mm at Naha on the 11th April and 263 mm at Osesaki on the 13th July.

Generally speaking the amount of precipitation in this year is most abundant in Tsushima, where the annual amount exceeds 3000 mm; to this follow the Western Kiushu, the Southern Coast from Kiushu to Shima, extreme West of Nippon and the Coast of the Sea of Japan from Echizen to Echigo, in these districts the amount exceeding 200 mm. The driest places are the Inland Sea, the Central Nippon and the northeastern part of Hokkaido, where the annual amount is generally less than 800 mm; especially in Abashiri (Hokkaido) it does not reach even 600 mm.

JANUARY.—In this month, there is a remarkable contrast between outer Nippon (the part along the Pacific) and inner Nippon (the part along the Sea of Japan); viz, in outer Nippon the precipitation is very scanty and generally falls quite short of 50 mm, while in inner Nippon from Iwami eastward to Echigo, it generally exceeds 200 mm; especially in the provinces of Wakasa, Echizen, Kaga, Noto and Etchiu, it reaches 400 mm.

FEBRUARY.—The distribution in this month is somewhat different from that of the last month. The precipitation on the Southern Coast gets much greater, while on the Coast of the Sea of Japan it gets somewhat less, to that the line of 100 mm nearly encircles the whole of our Coast. The driest regions are Inland Sea, Central Nippon and eastern part of Hokkaido, where the precipitation is less than 50 mm; the maximum precipitation occurs on the southern coast of Kii, and the three provinces of Kaga, Noto and Etchiu, where it exceeds 200 mm.

MARCH.—The distribution remains almost unchanged from the preceeding month. The regions of minimum precipitation are still Inland Sea and Hokkaido, their amounts remaining still below 50 mm. The districts of plentiful precipitation exceeding 200 mm are Kaga,

Noto and a strip of land extending from Kii to the neighbourhood of Miyako along the Pacific.

APRIL.- In this month the precipitation is plenty along the Coast and scanty in Inland regions. The minimum amount is in Inland Sea, Tosando and Hokkaido, being generally less than 50 mm. The maximum is on the Southern Coast, where there is no small number of places having their amount exceeding 200 mm.

MAY.—The distribution is somewhat complicated in this month. Yet we may broadly say that the plentiful precipitation is on the western coast of Kiushu, Shikoku and the southern coast of Kii, where the precipitation exceeds 200 mm. The regions having their precipitation less than 50 mm are Inland Sea and those provinces lying the North of Tokio. On the southeastern coast of Hokkaido the precipitation exceeds 100 mm.

JUNE.—The amount of precipitation is considerably increased over the whole country so that only regions with their precipitation less than 50 mm are the province of Mutsu and the western part of Hokkaido. On the rest, the precipitation generally exceeds 100 mm, but in Inland Sea still it remains comparatively small, being less than 100 mm. The maximum precipitation of more than 400 mm occurs in Tsushima, Kii and the southern coast of Shima.

JULY.—In this month, the precipitation is remarkably increased and the distribution is very much complicated. However we may say that it is plenty on the Coast and scanty in inland regions. It generally exceeds 400 mm in Western Nippon, northern part of Kiushu, and provinces of Mino, Omi, Wakasa and Echizen; especially in the neighbourhood of Tsuruga, it reaches the enormous amount of 600 mm. The minimum amount less than 50 mm occurs in Shinano and northern part of Hokkaido.

AUGUST.—As in the last month, the distribution is awfully complicated. The plentiful precipitation is in western part of Kiushu and the southern part of Shikoku, where it exceeds 400 mm. In Tokushima it reached 600 mm. It is less than 50 mm in Shinano and Kwanto and also very small in the northern part of Hokkaido. We may observe that, on the whole, the amount is less than in the last month.

SEPTEMBER.—The distribution of precipitation is still complicated, but the amount has been somewhat increased over the whole country. The precipitation of 400 mm occurs in our Western and Southern Coast; on the southern coast of Kii, there are many localities where it reached 800 mm. In inland regions, it is comparatively dry, so that the precipitation is less than 100 mm in Inland Sea and Shinano, and less than 50 mm in Central Hokkaido.

OCTOBER. In this month, the precipitation is very much decreased, excepting Hokkaido, so that in inland regions it is generally less than 50 mm and even in sea-shore it ranges between 50 and 100 mm. In Hokkaido, the precipitation is remarkably increased in its northwestern part where compared to the last month, and generally remains above 100 mm, particularly in Soya, it is more than 200 mm.

NOVEMBER.—The precipitation is increased up to 100 mm on the Coast of the Sea of Japan, and in no small number of places it reaches 200 mm. The dry places with their precipitation less than 50 mm are Inland Sea, Shikoku, Kiushu and that part of the eastern coast from Sendai northward to Hokkaido.

DECEMBER.—In this month also, the precipitation is most plenty on the Coast of the Sea of Japan and is usually more than 100 mm. On that part of the coast from Wakasa to Etchiu and also on the western coast of Hokkaido, it exceeds 200 mm. On the rest of the country, it is generally less than 100 mm; but in Inland Sea, Central Nippon and the northeastern part of Hokkaido it does not reach even 50 mm.

ON THE EARTHQUAKES

IN

THE YEAR 1891.

NUMBERS OF EARTHQUAKES.

During this year, there were altogether 2,670 earthquakes. The number was unusually great, owing essentially to the innumerable after-shocks of the Mino-Owari Great Earthquake on October 28th, and 719 shocks at Gifu from the 28th to the 31st, 482 shocks at Nagoya, 138 at Tsu, 68 at Kioto and 45 at Ozaka, but areas of these disturbances being unknown, they are neglected from insertion on the next Table and also on Plate I of the appendix. The maximum frequency occurred in the vicinity of Owari Bay and Lake Biwa. Plate I shows their general distribution. Some parts of Hokkaido left blank, on the Plate, interpret a region not visited by any earthquake; or rather estimated so, on receiving no report.

SEASONAL FREQUENCY.

The monthly frequency is exhibited in the next Table

Month	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Sum	Mean
Frequency	34	70	64	83	66	59	57	72	31	98	1412	624	2670	222.5

From the above Table, it will be seen that the total frequency of this year is 2,670, with its maximum in November, minimum in September.

When considered with reference to seasons, we get the following number:—

Seasons	Spring	Summer	Autumn	Winter *	Sum	Mean
Frequency	213	188	1541	728	2670	667.5

As shown in the Table, the average frequency of each season is 667.5, the greatest being in Autumn, the least in Summer.

Again, by dividing the year into warm and cold seasons, we have the following list:—

Seasons	Warm (Apr.-Sept.)	Cold (Oct.-Mar.)	Sum	Mean
Frequency	368	2302	2670	1335.0

Thus from the Table we see that the mean seasonal frequency is 1335 and the number in cold season greater than that in warm.

* Note:—Winter in this case relates to the months January, February and December of this year, not counted from the December of the previous year as usual.

TIME OF EARTHQUAKE OCCURRENCE.

The following Table is one in which the 2,670 earthquakes are arranged according to the hour of the day:—

Hour \ Month	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Sum
0— 1 am	1	4	2	8	3	3	—	2	1	3	74	13	114
1— 2 am	3	2	4	3	—	4	1	1	—	6	82	24	130
2— 3 am	2	2	5	1	—	4	2	1	—	5	76	26	124
3— 4 am	1	2	2	1	—	1	1	3	—	2	62	30	105
4— 5 am	—	5	3	1	—	2	3	6	2	4	77	25	118
5— 6 am	1	5	4	1	4	3	—	5	1	3	72	32	131
6— 7 am	5	7	7	1	1	5	4	4	1	5	56	31	127
7— 8 am	1	5	2	3	2	4	1	4	1	4	48	15	90
8— 9 am	2	3	5	—	5	2	3	6	2	2	42	24	96
9—10 am	—	2	3	3	8	4	4	1	3	7	49	22	106
10—11 am	1	3	2	4	4	2	2	3	1	4	52	18	96
11—noon	1	—	1	4	8	2	2	1	5	3	55	29	111
0— 1 pm	1	2	2	6	2	1	2	4	1	1	47	29	98
1— 2 pm	1	1	1	1	2	2	3	7	1	4	49	32	104
2— 3 pm	3	3	—	5	4	—	2	4	3	6	51	26	107
3— 4 pm	1	1	2	2	4	—	3	3	—	—	44	27	87
4— 5 pm	1	2	2	3	3	6	4	3	—	5	38	19	86
5— 6 pm	1	1	3	2	1	1	2	4	1	8	53	23	100
6— 7 pm	1	1	—	3	2	1	5	2	1	6	43	24	99
7— 8 pm	1	2	1	6	3	1	3	1	2	3	70	22	115
8— 9 pm	1	5	3	5	3	3	3	2	1	7	66	27	126
9—10 pm	3	5	2	6	3	4	5	3	3	6	71	47	158
10—11 pm	2	6	2	7	—	2	2	—	—	4	69	26	121
11—M. N.	—	1	5	7	4	2	—	2	1	—	66	23	111
Total	34	70	64	83	66	59	57	72	31	98	1412	624	2670

The maximum number of earthquakes occurs between 9 pm and 10 pm, the second maximum between 5 am and 6 am. The minimum number occurs between 4 pm and 5 pm, the next least number between 3 pm and 4 pm. If day and night be separated by 6 am and 6 pm, we have 154 earthquakes more in the latter than in the former.

AREA OF SEISMIC DISTURBANCE.

Area of earthquake extends, when great, over several thousand square ri (1 sq. ri = 15.42 sq. Kilometers), but, in small, it only confines to one province or district. Now the total earthquakes of this year can be classified, according to the magnitudes of the land areas shaken, as follows:—

Area \ Month	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Sum	Mean
sq. ri > 1,000	—	3	5	6	5	5	8	4	1	13	92	25	167	13.9
> 100	1	12	12	7	9	5	8	10	6	14	388	156	628	52.3
< 100	33	55	47	70	52	49	41	58	24	71	932	443	1875	156.2
Sum	34	70	64	83	66	59	57	72	31	98	1412	624	2670	222.5

Thus we learn from the above Table that, out of 2670, there were 1875 earthquakes which disturbed land areas of less than 100 sq. ri, 628 earthquakes which disturbed land areas of more than 100 sq. ri, 167 earthquakes which disturbed more than 1,000 sq. ri, and even we

have experienced 9 whose land area of disturbance was over 5,000 sq. ri and 1 whose disturbed area was above 10,000 sq. ri.

INTENSITY OF EARTHQUAKES.

Out of 2,670 earthquakes, strong shocks felt in our country were 84, weak shocks 2,586, or in percentage, we got for the former 3 and for the latter 97. The region where the strong earthquakes frequently visited, is the narrowest portion of Nippon, i. e., in the neighbourhood of Owari Bay and the Lake of Biwa.

The most violent earthquake of this year is one took place on October 28th, which devastated very seriously the provinces of Mino and Owari; next comes, the shock on December 24th which had shaken the region near the base of Fujiyama. In these seismic disturbances, several subsidences and cracks of the ground took place, houses were destroyed, persons and animals were more or less killed or injured.

NOTES ON SPECIAL EARTHQUAKES.

Now we shall give brief descriptions of the strongest of the 2,670 earthquakes of this year.

(1) About 4.18 pm, on March 1st.

This was strongly felt on the southeast coast of Nippon, the shaken area being 2,090 sq. ri.

(2) About 9.50 am, on April 7th.

The disturbance covered the whole Eastern Nippon and Southern Hokkaido, the total area reaching 7,450 sq. ri. Especially the greatest disturbance was in Northern Nippon whose area covers 2,660 sq. ri. The report of the Miyako Meteorological Station informs us that the commencement of this earthquake was slight, but soon increased its intensity, the direction being North–South, the duration 1 minute and 15 seconds. The report of other places say that it was accompanied with loud underground noises, in the direction of Southwest–Northeast, its duration being unusually long (4 minutes) and the vertical movements were great and lasted about 6 or 7 minutes. Ishinomaki Station has reported that it was commenced with slight shocks, but after 6 seconds interval, the sudden violent shakings were followed in the direction Eastnortheast–Westsouthwest, the maximum range being 6.8 mm in 0.6 second. In the District Miyagi, the shock followed the roaring sounds, produced in the western hills, which resembled a distant thunder, the direction of the earthquake being East–West, and persons ran out of doors. In Sendai, vertical movements have continued about 3 minutes.

At 6.30 pm on the same day, another earthquake took place in the same district. The area of the second shock, whose origin appears to have been nearly the

same as that of the first, was smaller than half of the former and caused no damage.

(3) About 8.25 am, on July 18th.
This affected Western Japan, the strongest portion being the Inland Sea. The area of disturbance being 4,110 sq. ri. It is to be noted that the extensive area and the strong intensity of this earthquake are considered to have been very unusual. Again at 9.05 pm, a slight shock was felt, its character and origin being just like the previous one. The disturbance covered an area of 3,050 sq. ri.

(4) About 8.15 pm, on July 21st.
This covered an area of 8,180 sq. ri., the disturbed region being Eastern Nippon. The tract severely felt was on the Southeast Coast wherein at some parts liquids overflowed, pendulum clocks stopped.

(5) About 5.36 pm, on August 28th.
This covered an area of 1,350 sq. ri. It had its origin in the Western Inland Sea and thence transmitted to the neighbouring regions.

(6) About 7.06 am, on October 16th.
This shock had its centre near Bungo Channel and was felt over Western Japan, the disturbed area covering 5,260 sq. ri. The districts most strongly affected were those surrounding the Western Inland Sea, especially in Eastern Kiushu, and its area was 1,790 sq. ri. Many cracks were produced on the walls, tiles of roofs were thrown down, articles on shelves and tombstones were knocked down, liquids overflowed, pendulum clocks stopped.

(7) About 6.40 am, on October 28th.
This earthquake had its centre in the provinces of Mino and Owari, situated in the western part of Central Nippon, whence it extended into Kiushu and Shikoku in the west, into Northern Nippon in the northeast, covering altogether an area of 15,750 sq. ri. We shall next give the areas of disturbances according to the intensity of shocks:—

a) The most severely shaken district
(Near Owari Bay and Lake Biwa) .... 720 sq. ri.

b) The very severely shaken district
(Nearly whole Central Nippon) .... 2,910 sq. ri.

c) The severely shaken district
(Nearly whole Nippon and Shikoku) .... 3,390 sq. ri.

d) The slightly shaken district
(Nearly whole Japan, except Hokkaido and Liukiu)....8,730 sq. ri.

As for the sake of convenience, these divisions were given by mere estimation, we may confess that some places might be comparatively not severe, notwithstanding they were included in the class (a), while others might be entirely in opposite condition. The most violently affected places were in Mino Province—more properly near the valley called *Neo.* Since the report of the meteorological station at Gifu is of special interest, we have extracted some essential points contained in it and laid down in the following:—

The *Neo* Valley is situated along the *Neo* River, about 25 miles long, taking its source from a mountain called Hakusan (not that in Kaga Province) and on both sides of it there were one thousand dwellings respectively. On the day of the great earthquake, many rumblings were heard in the direction of these villages which afterward found to have been the greatest disaster ever happened. Many landslips of mountain–sides occurred, the ground at 6 or 7 places depressed, bridges broken down, rivers flooded or dried up. Its after–shocks have never been ceased during four days. The most severely subsided regions to some hundred feet under the level of river waters—were two villages wherein dwellings, temples, etc., were overwhelmed. In fact, not only the whole people in the neighbouring villages rendered entirely homeless, but certainly there remained only few alive.

We shall now proceed to give some account of the greatest sudden subsidence of *Mizutori–mura* and of the lake produced at *Itadokoro–mura.*

Mizutori–mura is bordered its back side by a hill and in front by the *Neo* River. On the early morning of October 28th, the summit and the side of the hill were slipped down, accompanied by roaring sounds of the ground, and all the places along the river were depressed into 10 feet or more, trees, houses, temples and churches shaken down all with them, rendering the roads, leading there, almost impassable.

Itadokoro–mura situated at the base of a hill was greatly disturbed, resulting from the subsidence of rice fields in front and suddenly produced a lake (about a mile in length, $\frac{1}{5}$ mile in width) which has been probably accounted for the effect of preventing the water courses, by the bed of the *Neo* River upheaved.

Besides, in violently shaken district, there took place many damages, such as the subsidences or elevations of the ground, rent or cracks, landslips of mountain-sides, shatterings of embankments, breaking down of bridges, destroying of roads, ejecting of water and sands, knocking down of houses, death and injury of persons and animals, etc.

A summary account of them is given below:—

Number of people killed	7,273
" " " wounded	17,175

Number of houses totally destroyed........	142,177	
„ „ „ partially „	80,324	
Number of bridges damaged	10,392	
Roads damaged	2,067	different places
Embankments destroyed	7,177	„ „
Mountain landslips.........................	10,223	„ „

The embankments along the Rivers *Kiso and Shonai* in Owari, were so generally fissured or depressed that it is impossible to count the number ef damaged points and therefore they were mostly left out of view in the above list.

The reports referring to the changes in spring waters by this great earthquake will be seen in the following remarks:—

In Ise, the neighbouring province of Owari, a hot spring was suddenly affected by the earthquake by ejecting enormous quantity of blue muds and sulphur deposits; the waters have increased threefold; temperature risen; spring waters gushed forth in three different places in that neighbourhood. It is said that this spring has temporarily ceased to flow out during a year or so, after the great earthquake of *Ansei* (about 35 years ago), the cause of which was told to be likely attributable to the change of underground water courses.

Temperature of the hot springs, named *Yoshina* and *Yugashima*, in Izu Province has risen about 15 degrees and that of *Yugano*, which had been usually observed to be 52°, has raised 4 or 5 degrees, and also the mineral waters in its vicinity, suitable for drinking, have increased 50 % of their quantity and raised its temperature to such a height as were no longer fitted for drinking, while the *Rentaiji* hot spring has lowered its temperature and favoured people for bathing at a time which could never be practiced by them previously, on account of its great heat, but after 3 or 4 days it resumed its usual temperature.

At *Hida* in the province of Suruga, there is a large gas reservoir, the cylindrical iron cover of which was easily moved up and down, by the sudden immence increase of gas emission, accompanying by subterranean noises. The iron cover is stated to have been 13 feet high and 7 feet in diameter. Also mineral spring at the same place has multiplied its quantity and ejected impure water up to the height of 3–4 feet, and another spring in the eastern portion of Suruga was also greatly affected.

In the town of *Kofu* of Kai Province, the water of an artesian well has quickly increased their quantity and raised temperature.

Folks, at different places, in Etchiu, Settsu, Mimasaka and Iwashiro Provinces, were said to have met with similar phenomena, as mentioned above.

We have learned from the report of the Nagano Station that the smoke of *Asamagatake* had increased and accompanied with flames. Its details are given in the following:—

At about 8 pm, on October 30th, we observed flames, mixed with smokes

on the summit of Asamagatake, during about 20 minutes. At about 9 pm on November 1st, the sky over the top of the mountain was seen scarlet, emitting smokes enormously, but ceased after one hour. On the next day, at 9.30 am, very thick smokes have risen and flowed over horizontally towards the east, which also lasted not over an hour. Since then, the summit has been covered with grayish white color, probably owing to the ashes abundantly issued out. On the succeeding day, no unusual phenomenon was noticed, except a thin smoke rising twice on the morning, only lasting 30 or 40 minutes.

According to the observations at Gifu and Nagoya Stations, there had been, in the same year, between January and September, 25 shocks in Gifu and 9 in Nagoya, however they were nothing but tremblings. Prior to the great earthquake, that is before 58 hours, there was one strong shock at 9.14 pm on October 25th. Number of earthquakes which took place between January and October are given in the following Table :—

	Month	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct. (to 27th)	Sum
Gifu	Strong	—	—	—	—	—	—	—	—	—	1	1
	Weak	—	1	—	—	—	—	—	—	—	—	1
	Slight	—	2	7	2	5	3	4	1	—	—	24
	Sum	0	3	7	2	5	3	4	1	0	1	26
Nagoya	Strong	—	—	—	—	—	—	—	—	—	1	1
	Weak	—	—	—	—	—	—	—	—	—	1	1
	Slight	—	1	1	—	1	2	3	1	—	1	10
	Sum	0	1	1	0	1	2	3	1	0	3	12

The great earthquake was followed by numerous roaring sounds and tremblings, and especially, about one month later, by a good deal violent shock which took place at 9.40 pm, November 28th, and then by a few strong shocks. These did not fortunately cause any more new damages. In the following Table are given the daily number of earthquakes which happened between October 28th and November 30th :—

Date	Gifu					Nagoya				
	Most Violent	Violent	Strong	Weak or Slight	Total	Most Violent	Violent	Strong	Weak or Slight	Total
October 28	1	—	9	93	103	1	—	4	121	126
29	—	—	15	303	318	—	—	7	178	185
30	—	—	17	156	173	—	—	4	89	93
31	—	—	3	123	126	—	—	3	76	79
Sum	1	—	44	675	720	1	—	18	464	483

Date	Gifu					Nagoya				
	Most Violent	Violent	Strong	Weak or Slight	Total	Most Violent	Violent	Strong	Weak or Slight	Total
November 1	—	—	5	94	99	—	—	4	52	56
2	—	—	4	88	92	—	—	5	25	30
3	—	—	—	81	81	—	—	1	30	31
4	—	—	2	76	78	—	—	2	18	20
5	—	—	1	52	53	—	—	3	17	20
6	—	—	4	63	67	—	—	2	14	16
7	—	—	3	42	45	—	—	2	27	29
8	—	—	1	41	42	—	—	1	17	18
9	—	—	1	43	44	—	—	1	15	16
10	—	—	—	40	40	—	—	—	12	12
11	—	—	—	38	38	—	—	1	4	5
12	—	—	1	39	40	—	—	1	6	7
13	—	—	1	34	35	—	—	1	12	13
14	—	—	—	29	29	—	—	—	12	12
15	—	—	—	29	29	—	—	—	12	12
16	—	—	—	28	28	—	—	—	13	13
17	—	—	—	21	21	—	—	—	15	15
18	—	—	—	18	18	—	—	—	9	9
19	—	—	—	17	17	—	—	—	4	4
20	—	—	1	32	33	—	—	—	9	9
21	—	1	1	19	21	—	—	1	8	9
22	—	—	—	12	12	—	—	—	5	5
23	—	—	2	21	23	—	—	1	8	9
24	—	—	—	18	18	—	—	—	9	9
25	—	—	—	9	9	—	—	—	9	9
26	—	—	—	15	15	—	—	—	5	5
27	—	—	1	10	11	—	—	—	8	8
28	—	1	1	14	16	—	1	1	5	7
29	—	—	—	19	19	—	—	—	5	5
30	—	—	—	14	14	—	—	—	2	2
Total	1	2	74	1650	1726	1	1	45	851	898

Note.—The tremblings which immediately followed the great shock occurred so near each other, almost continually, that it was found impossible to count accurately their number at Gifu till about 1.55 pm, and at Nagoya till about 1 pm of the same day. These numbers not being known, are not included in the above Table.

(8) About 11.32 am, on November 15th.

This shock seems to have originated in the sea bed off Echizen, the central part of the west coast facing to the Japan Sea, and disturbed the area of 3,860 sq. ri extending over Central and Western Nippon; especially the strongly shaken district was the province of Echizen which covers the area of 160 sq. ri.

(9) About 5.30 am, on December 24th.

The earthquake had its origin in Kai, Suruga and Sagami provinces, and extended

over Central and Northern Nippon, covering the total area of 8,530 sq. ri, amongst which the region strongly felt was Central Nippon, comprising the area of 2,360 sq. ri. In the province of Kai, a tombstone facing West–East, has moved North-east–Southwest, the roads fissured, the walls of houses and *Dozo* (store houses built of mud) fell down, the articles overturned, mountain cliffs broken, many rocks fractured and shaken down. After the great shock, a good deal of tremblings have followed.

In Sagami province, both horizontal and vertical shocks were strongly felt, tombstones facing West, moved northward, railway and roads fissured, and many other damages were caused.

At several places in Suruga, damages serious, at Subashiri, the tract of land (120 feet long and 9 feet wide) was depressed 2 feet, many landslips of mountain–sides produced, liquids flowed out, etc.

At the end, we may add that such a strong earthquake has ever happened in those regions stated above, since the transactions of our earthquake service were opened in the Central Meteorological Observatory, in the year 1885.

SEISMOMETRICAL OBSERVATIONS

AT

TOKIO.

The total number of earthquakes observed at Tokio, during this year from January to December, is 123, the date and the time of occurrence, duration, etc., of which may be arranged as in the following Table:—

Date	Time of Occurrence	Duration	Horizontal Motion					Vertical Motion
			Direction	Period	Maximum Range (double amplitude)	Maximum Velocity per Second	Maximum Acceleration per Second	Maximum Double Amplitude
	h m s	m s		s	mm	mm	mm	mm
Jan. 29	5 20 30 pm	—	—	—	slight	—	—	—
Feb. 13	6 30 0 am	2 50	SSE, NNW	1.4	0.5	1.1	5.0	slight
13	6 56 20 am	2 0	SSE, NNW	1.1	0.5	1.4	8.2	—
14	10 10 34 am	1 15	ESE, WNW	0.2	0.4	6.3	197.4	—
20	2 17 16 pm	—	—	—	slight	—	—	—
Mar. 1	4 17 43 pm	2 20	SW, NE	0.3	0.5	5.2	109.6	s 0.3 0.3
2	7 17 40 am	—	—	—	slight	—	—	—
20	8 39 38 am	?	E, W	—	slight	—	—	—
24	10 22 31 pm	—	—	—	slight	—	—	—
25	5 11 0 am	1 0	E, W	0.6	0.3	1.6	16.4	—
28	3 28 7 pm	—	—	—	slight	—	—	—
April 6	4 8 10 pm	—	—	—	slight	—	—	—
7	9 49 46 am	6 0	SSW, NNE	1.5	0.8	1.7	7.0	slight
15	2 59 16 pm	10	E, W	—	slight	—	—	—
18	0 5 6 pm	—	—	—	slight	—	—	—
21	10 49 7 am	3 0	WNW, ESE	1.1	1.9	5.4	31.0	slight
25	10 24 23 pm	—	—	—	slight	—	—	—
30	11 54 3 am	—	—	—	slight	—	—	—
May 5	8 16 48 am	2 30	SSE, NNW	1.3	0.6	1.4	7.0	—
9	9 51 38 am	—	—	—	slight	—	—	—
14	4 13 39 pm	20	E, W	—	slight	—	—	—
18	9 40 52 am	—	—	—	slight	—	—	—
18	10 53 39 am	—	—	—	slight	—	—	—
18	11 21 22 am	—	—	—	slight	—	—	—
19	0 0 15 pm	4 40	ESE, WNW	1.3	0.5	1.2	5.8	slight
25	1 37 44 pm	1 20	WSW, ENE	0.7	0.3	1.3	12.1	—
26	0 19 55 pm	—	—	—	slight	—	—	—
30	2 20 19 pm	1 30	WNW, ESE	0.9	0.5	1.7	12.2	slight
June 1	10 11 0 am	—	—	—	slight	—	—	—
1	0 38 43 pm	1 23	S, N	0.7	0.4	1.8	16.1	slight

Date	Time of Occurrence	Duration	Horizontal Motion					Vertical Motion
			Direction	Period	Maximum Range (double amplitude)	Maximum Velocity per Second	Maximum Acceleration per Second	Maximum double Amplitude
	h m s	m s		s	mm	mm	mm	mm
June 4	9 22 13 pm	1 30	WSW, ENE	0.8	0.3	1.2	9.2	slight
4	11 15 15 pm	50	NE, SW	0.6	0.3	1.6	16.4	—
19	6 41 49 am	1 10	ESE, WNW	0.4	0.5	3.9	61.7	—
22	9 43 42 am	—	—	—	slight	—	—	—
25	3 41 48 am	4 30	NNW, SSE	1.0	0.9	2.8	17.7	slight
July 6	11 2 28 am	—	—	—	slight	—	—	—
6	1 38 11 pm	—	—	—	slight	—	—	—
7	0 6 12 pm	7 30	SSW, NNE	2.9	1.4	1.5	3.3	slight
15	9 18 0 am	—	—	—	slight	—	—	—
15	2 21 58 pm	—	—	—	slight	—	—	—
19	5 57 30 pm	1 20	SW, NE	1.0	1.0	3.1	19.7	slight
21	8 19 20 pm	6 0	SW, NE	3.6	10.5	9.2	16.0	s 0.3 0.5
24	6 15 35 am	—	—	—	slight	—	—	—
Aug. 4	4 40 21 am	1 30	SE, NW	0.2	0.5	7.8	246.5	slight
5	8 14 50 am	38	S, N	0.7	0.4	1.8	16.1	—
21	0 26 8 pm	45	ENE, WSW	0.1	0.2	0.6	3.9	slight
24	9 44 10 pm	—	—	—	slight	—	—	—
Sept. 3	2 11 23 pm	30	S, N	—	slight	—	—	—
8	10 49 25 am	1 30	ESE, WNW	0.8	0.6	2.4	18.5	—
9	11 49 58 am	—	—	—	slight	—	—	—
18	8 46 9 am	30	S, N	—	slight	—	—	—
Oct. 4	6 28 38 pm	1 0	SW, NE	0.6	0.4	2.1	21.9	slight
5	8 10 23 pm	1 30	WSW, ENE	0.8	0.5	2.0	15.4	slight
6	1 1 27 am	—	—	—	—	—	—	—
6	6 47 30 am	1 50	S, N	1.2	0.2	0.5	2.7	—
6	2 19 2 pm	40	?	—	slight	—	—	—
7	11 23 17 am	1 0	S, N	1.2	0.2	0.5	2.7	—
8	9 0 34 am	—	—	—	slight	—	—	—
11	4 16 27 pm	2 30	SE, NW	2.0	2.0	3.1	9.9	s 0.2 0.6
12	2 7 28 pm	—	—	—	slight	—	—	—
12	5 28 17 pm	—	—	—	slight	—	—	—
12	9 31 40 pm	1 0	ESE, WNW	0.3	0.2	2.1	43.9	—
16	7 4 15 am	—	—	—	slight	—	—	—
22	6 26 20 am	1 20	ESE, WNW	1.1	1.3	3.7	21.3	slight
22	9 0 5 pm	1 0	NW, SE	0.4	0.3	2.4	37.0	—
24	8 17 49 pm	1 25	S, N	1.0	0.3	0.9	5.9	—
27	6 13 13 am	2 10	ESE, WNW	0.8	0.9	3.5	27.8	slight
27	7 9 45 pm	1 10	ESE, WNW	0.7	0.5	2.2	20.1	—
28	6 39 11 am	7 0	E, W	2.4	31.5	41.2	107.9	s 2.4 4.5
28	7 3 40 am	—	—	—	slight	—	—	—
28	7 6 46 am	—	—	—	slight	—	—	—
28	7 21 32 am	—	—	—	slight	—	—	—
28	7 25 23 am	—	—	—	slight	—	—	—
28	7 45 59 am	1 13	S, N	0.7	0.2	0.9	8.1	—
28	7 54 47 am	1 30	SSE, NNW	1.0	0.6	1.9	11.8	—
28	9 9 42 am	—	—	—	slight	—	—	—
28	10 38 11 am	3 0	SSW, NNE	2.0	0.7	1.1	3.4	—

Date	Time of Occurrence	Duration	Horizontal Motion					Vertical Motion
			Direction	Period	Maximum Range (double amplitude)	Maximum Velocity per Second	Maximum Acceleration per Second	Maximum Double Amplitude
	h m s	m s		s	mm	mm	mm	mm
Oct. 28	10 29 19 am	2 0	S, N	1.1	0.3	0.9	4.9	—
28	10 58 23 am	—	—	—	slight	—	—	—
28	0 12 6 pm	—	—	—	slight	—	—	—
28	1 3 25 pm	—	—	—	slight	—	—	—
28	3 3 57 pm	—	—	—	slight	—	—	—
28	3 27 0 pm	—	—	—	slight	—	—	—
28	3 33 47 pm	—	—	—	slight	—	—	—
28	3 57 11 pm	—	—	—	slight	—	—	—
28	5 32 28 pm	1 50	SE, NW	0.9	0.6	2.1	14.6	—
28	6 21 32 pm	—	—	—	slight	—	—	—
28	7 15 37 pm	—	—	—	slight	—	—	—
28	7 28 25 pm	1 30	S, N	0.5	0.2	1.3	15.8	—
28	8 25 10 pm	1 10	S, N	0.7	0.2	0.9	8.1	—
29	7 8 31 am	—	—	—	slight	—	—	—
30	0 15 14 am	2 30	S, N	1.2	0.7	1.8	9.6	—
30	2 27 47 am	1 30	S, N	1.1	0.4	1.1	6.5	—
30	2 25 56 pm	30	E, W	—	slight	—	—	—
30	7 9 7 pm	35	S, N	—	slight	—	—	—
30	10 25 0 pm	—	—	—	slight	—	—	—
Nov. 1	6 2 29 am	—	—	—	slight	—	—	—
1	9 20 6 pm	1 0	SW, NE	0.6	0.3	1.6	16.4	—
2	4 59 23 pm	1 10	SSE, NNW	0.8	0.2	0.8	6.2	—
3	1 2 18 pm	—	—	—	slight	—	—	—
6	10 0 14 am	1 0	E, W	0.6	0.2	1.0	11.0	—
7	2 18 5 am	3 0	S, N	1.8	0.4	0.7	2.4	—
7	3 36 54 pm	2 30	NW, SE	0.5	0.3	1.9	33.7	slight
20	9 45 26 pm	1 20	SW, NE	0.8	0.2	0.8	6.2	—
23	0 30 11 am	1 30	SE, NW	0.5	1.0	6.3	78.9	slight
23	2 39 45 am	—	—	—	slight	—	—	—
28	9 41 4 am	1 30	E, W	1.1	0.2	0.6	3.3	—
28	11 9 36 am	1 0	E, W	—	slight	—	—	—
Dec. 3	2 2 27 am	1 0	S, N	0.9	0.2	0.7	4.9	—
3	1 11 54 pm	—	—	—	slight	—	—	—
3	9 51 15 pm	—	—	—	slight	—	—	—
4	9 25 4 pm	1 30	NW, SE	0.8	0.4	1.6	12.3	—
8	4 2 17 pm	—	—	—	slight	—	—	—
11	8 44 11 pm	1 0	SW, NE	0.7	0.3	1.3	12.1	slight
15	11 23 45 am	2 50	ESE, WNW	0.8	0.9	3.5	27.8	slight
21	2 20 15 pm	—	—	—	slight	—	—	—
22	4 23 38 am	—	—	—	slight	—	—	—
24	5 33 14 am	3 40	NW, SE	1.9	16.2	26.8	88.6	s 0.9 2.0
24	5 52 22 am	—	—	—	slight	—	—	—
24	6 26 16 am	—	—	—	slight	—	—	—
25	7 38 13 pm	1 0	NW, SE	0.7	0.3	1.3	12.1	—
26	10 22 37 pm	1 0	SE, NW	0.9	0.2	0.7	4.9	—
29	11 13 20 pm	—	—	—	slight	—	—	—

Of the total number of 123, the monthly frequency is distributed as follows:—

Month	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Sum
Frequency	1	4	6	7	10	7	8	4	4	45	12	15	123

From the above Table, it will be seen that the maximum frequency occurs in October and the minimum in January.

When considered with respect to seasons, they will be distributed as in the following list:—

Seasons	Spring	Summer	Autumn	Winter	Mean
Frequency	23	19	61	20	31

Thus the mean of one season is 31, and the greatest number is seen in Autumn, the least in Summer.

When we divide the year into hot and cold seasons, we will get the following numbers:—

Seasons	Cold	Hot	Mean
Frequency	83	40	61

As in the Table, the average number is 61, and they are greater in the cold season by 43 than in the hot.

TIME OF EARTHQUAKE OCCURRENCE.

Total number of earthquakes, took place in this year, is arranged according to the hours of the day in the next Table:—

Hour \ Month	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Sum
0— 1 am	—	—	—	—	—	—	—	—	—	1	1	—	2
1— 2 am	—	—	—	—	—	—	—	—	—	1	—	—	1
2— 3 am	—	—	—	—	—	—	—	—	—	1	2	1	4
3— 4 am	—	—	—	—	—	1	—	—	—	—	—	—	1
4— 5 am	—	—	—	—	—	—	—	1	—	—	—	1	2
5— 6 am	—	—	1	—	—	—	—	—	—	—	—	2	3
6— 7 am	—	2	—	—	—	1	1	—	—	4	1	1	10
7— 8 am	—	—	1	—	—	—	—	—	—	8	—	—	9
8— 9 am	—	—	1	—	1	—	—	1	1	—	—	—	4
9—10 am	—	—	—	1	2	1	1	—	—	2	1	—	8
10—11 am	—	1	—	1	1	1	—	—	I	1	1	—	7
11—noon	—	—	—	1	1	—	1	—	1	3	1	1	9

Hour \ Month	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Sum
0— 1 pm	—	—	—	1	2	1	1	1	—	1	—	—	7
1— 2 pm	—	—	—	—	1	—	1	—	—	1	1	1	5
2— 3 pm	—	1	—	1	1	—	1	—	1	3	—	1	9
3— 4 pm	—	—	1	—	—	—	—	—	—	4	1	—	6
4— 5 pm	—	—	1	1	1	—	-	—	—	1	1	1	6
5— 6 pm	1	—	—	—	—	—	1	—	—	2	—	—	4
6— 7 pm	—	—	—	—	—	—	—	—	—	2	—	—	2
7— 8 pm	—	—	—	—	—	—	—	—	—	4	—	1	5
8— 9 pm	—	—	—	—	—	—	1	—	—	3	—	1	5
9—10 pm	—	—	—	—	—	1	—	1	—	2	2	2	8
10—11 pm	—	—	1	1	—	—	—	—	—	1	—	1	4
11—M. N.	—	—	—	—	—	1	—	—	—	—	—	1	2
Total	1	4	6	7	10	7	8	4	4	45	12	15	123

The above Table shows four intervals in which the greatest numbers of earthquakes take place, namely, between 6 and 7 am, 7 and 8 am, 11 am and noon, 2 and 3 pm. The smallest numbers occur between 1 and 2 am, 3 and 4 am.

INTENSITY OF EARTHQUAKES.

Now we shall treat of the earthquakes whose ranges of motion were unusually great. They will be tabulated in the following form:—

Date	Time of Occurrence	Duration	Horizontal Motion					Vertical Motion
			Direction	Period	Maximum Range	Maximum Velocity per Second	Maximum Acceleration per Second	Maximum Double Amplitude
	h m s	m s		s	mm	mm	mm	mm
Oct. 28	6 39 11 am	7 0	E, W	2.4	31.5	41.2	107.9	s 2.4, 4.5
Dec. 24	5 33 14 am	3 40	NW, SE	1.9	16.2	26.8	88.6	s 0.9, 2.0
July 21	8 19 20 pm	6 0	SW, NE	3.6	10.5	9.2	16.0	s 0.3, 0.5
Oct. 11	4 16 27 pm	2 30	SE, NW	2.0	2.0	3.1	9.9	s 0.2, 0.6
April 21	10 49 7 am	3 0	WNW, ESE	1.1	1.9	5.4	31.0	slight
July 7	0 6 12 pm	7 30	SSW, NNE	2.9	1.4	1.5	3.3	slight

As shown in the above Table, the earthquake having largest horizontal range of motion, that is, 31.5 mm in 2.4 seconds, occurred at 6^{h} 39^{m} 11^{s}, October 28^{th}, whose direction of movements had been East—West.

This has been the most violent and destructive, since the establishment of the Gray-Milne Seismograph in the Central Meteorological Observatory; it had its origin at about 170 miles to the West of Tokio and caused extraordinary devastations in the provinces of Mino

and Owari as we have already made allusion to, but, fortunately at Tokio, damages caused were comparatively slight. Next comes the earthquake at 5^h 33^m 14^s am on December 24th, its range of motion being 16.2 mm in 1.9 seconds in the direction Northwest—Southeast.

The centre of the shocks was found to be in the provinces of Kai, Suruga and Sagami, that part of Southern Nippon, surrounding the mount *Fuji*, wherein at some points the ground was slightly depressed, the roads cracked, landslips of mountain-sides produced, rocks shaken down, etc. Next strongly felt was the earthquake at 8^h 19^m 20^s pm on July 21st, whose maximum range of motion has been 10.5 mm in 3.6 seconds with the direction of Southwest–Northeast, the origin of shocks being in Southeastern Nippon, but no damages were caused.

The shocks of October 11th had its origin somewhat toward the East of Tokio, those of April 21st and July 7th have extended over Eastern Nippon, but no damages were reported.

Amongst the earthquakes happened during this year, the longest of duration was that occurred at 0^h 6^m 12^s pm on July 7th which was calculated to have continued seven minutes and thirty seconds; next comes the shock at 6^h 39^m 11^s am on July 28th which continued seven minutes; thirdly, those of 9^h 49^m 46^s am on April 7th and at 8^h 19^m 20^s pm on July 21st, whose duration were alike six minutes; fourthly that of 0^h 0^m 15^s pm on May 19th, the duration being four minutes forty seconds, fifthly, that of 3^h 41^m 48^s am on June 25th, the duration being four minutes thirty seconds. Others never continued over four minutes.

The earthquakes whose ranges of motion, reached over 30 mm, have happened only once during this year, and over 20 mm did not occur, over 10 mm twice, over 1 mm six times, and under 1 mm 50 times. Besides, we had 64 tremblings. Thus we can state that this year strong shocks have been few, while slight one numerous.

DIRECTION OF EARTHQUAKES.

Of the total number of 123 earthquakes of this year, the directions and numbers were distributed as follows:—

Direction	S, N	SSW NNE	SW NE	WSW ENE	E, W	ESE WNW	SE NW	SSE NNW	uncertain
Number	16	3	8	4	9	11	10	6	56

The above Table shows that the greatest number 16 falls in the direction North—South, 11 in Eastsoutheast—Westnorthwest and 10 in Southeast—Northwest, the least 3 lying under the direction Southsouthwest—Northnortheast, 4 under Westsouthwest—Eastnortheast, and there were 56 earthquakes whose directions were uncertain, the shocks having been very slight.

CHARACTERS OF EARTHQUAKES.

Earthquake motions are of two kinds—horizontal and vertical, and may be also quick and slow. They are classified as in the following Table:—

Month	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Sum
Horizontal and Vertical	—	1	1	2	2	3	3	2	—	6	2	3	25
Horizontal	—	2	2	1	3	2	0	1	3	18	7	4	43
Uncertain	1	1	3	4	5	2	5	1	1	21	3	8	55
Quick	—	3	2	1	—	4	0	2	1	5	2	3	23
Slow	—	—	1	2	5	1	3	1	2	19	7	4	45
Uncertain	1	1	3	4	5	2	5	1	1	3	3	8	55

As shown in the above Table, the number of horizontal motions was the greatest. Within 123 earthquakes, 43 belong to horizontal motions, 25 to the conjunct motions—horizontal and vertical, 55 to the slight shocks whose exact motions were not recognizable.

With regard to the velocity of shocks, we had 45 of slow motion, 23 of quick ones and 55 of unknown velocities owing to their feeble shocks.

METEOROLOGICAL OBSERVATIONS

ON THE

SUMMIT OF MOUNT ONTAKE

BY

H. MASATO, H. KONDO AND T. KONO OF THE OBSERVATORY.

According to the order received on July 1891, to make meteorological observations on the summit of Mount Ontake, we started to the mountain toward the end of the month, and both at the summit and the foot made twelve observations in a day during 43 days from the 1st of August to the 12th of September, which are fully given in the annexed tables.

Our hearty thanks are due to Prefect Asada of Nagano, who issued a special order to the "guncho" of Nishi-chikuma-gōri, and thence to the village Mitake to furnish us with everything conducive to our comfort and convenience in the setting up of our stations. We take much pleasure in acknowledging the assistance rendered by Messrs R. Iguchi and J. Nishizawa, who joined the party from Gifu and Nagano respectively, and to whose professional skill, and an untiring devotion to the interests of the expedition, our successes are materially due.

The two servants, K. Suzuki and S. Iwai did efficient and faithful services in the conveyance of instruments, outfit of the station, and many other duties, which lessened to no small extent several difficulties in the course of our observations.

In the four stations,—Gifu, Kanazawa, Nagano and Numazu—a number of observations extra to the fixed regular observations was taken during our sojourn on the summit, and by their means we were enabled to compare, from day to day, the meteorological conditions on the summit with those on the lower regions.

Now-a-days, it is the ardent desire commonly felt by every student of nature to study whole atmospheric condition in the bottom of the airy ocean. We hope, our observations taken at a height of more than 3000 metres, and extending for six weeks may be of some use to him. The description of Mount Ontake and some results of our investigations will be given as a reference in the following.

DESCRIPTION OF MOUNT ONTAKE.

Mount Ontake is one of the highest mountains in Japan. It is a member in a great chain of mountains dividing the two provinces of Shinano and Hida, and towers to the west of the village Mitake in Shinano. It lies in 35° 53′ N. and 137° 28′ E.* and its height above the sea level is 3069 metres.† The nearest distance either to the sea of Japan or to the Pacific Ocean is within one hundred kilometres. There are three ascents to the summit. The first and chief ascent called "Omoteyama" is from Kurosawa, and it is about twenty

* According to the map published by the General Staff.

† By our determination.

three kilometres to the summit, horizontal distance being about fourteen kilometres; the second from Ōdaki called "Urayama" is twenty kilometres; and the third from Ochiai in the province of Hida is twenty seven kilometres long.

On almost all of high mountains in our country, there are many temples, or spots with small edifices or mere significations, dedicated to gods. On the Ontake, also, there are many such spots of which the most famous one is that standing on the summit, called "Ontake-jinja" dedicated to the gods "Sukunahikona-no-Mikoto" and "Oanamuchi-no-Mikoto".

Every summer, no less than ten thousand pilgrims climb the mountain to visit this temple, so that we found the ascents via Kurosawa and Odaki in an unexpectedly good condition. Though the upper half of their ways are pretty difficult to climb, yet there are many small cottages at regular intervals throughout the whole ascent, where any one can stay for refreshments or lodging, and besides these cottages, several other cottages are to be found between them for resting places. But the third way via Ochiai, which was newly opened in 1886, is very steep and narrow so that one must struggle their ways along twenty seven long kilometres of the sinuous rocky path before reaching the summit. Moreover, there is no resting places by the way excepting a single hamlet called Nigori-Kawa, where there is a hot spring.

Once on the summit, a glorious and noble scene commanding on all the surrounding mountains and ridges presents itself. To the east, and nearest to us, lies Komagatake, which extending toward southeast joins itself with Ena-yama. Above them, towers the Aka-ishi chain, and still above them, the grand and sublime cone of Mount Fuji prints its bold outlines on the clear sky. Looking round Yatsugatake and Tadeshina-yama to the northeast, there towers Asamayama, which continually sends forth a mighty column of dense vapour from its crater. The Norikuragatake, the Yarigatake, etc. stretch to our north, and gently rising one above another, reach to the Tate-yama. The great chain of Haku-san lies to our northwest. To the west and south, one sees nothing but a plain of an immense extent stretching in grand waves beyond the range of vision, until they recede into a purple blue distance, where there are only dim outlines of hills far away.

The bearings of several mountains as seen from the summit of the Ontake are as follows:—

Norikuragatake	N 15° 2′ E.	Komagatake	S 69° 3′ E.
Yarigatake	N 18° 23′ E.	Fujisan	S 63° 22′ E.
Asama-yama	N 57° 54′ E.	Akaishi-yama	S 52° 41′ E.
Tadeshina-yama	N 71° 37′ E.	Ena-yama	S 12° 31′ E.
Hakusan	N 65° 50′ W.		

The Ontake is an extinct volcano. There are five basin-shaped depressions, forming a row in the north-and-south direction, which are the remains of the old crater. The southernmost depression is called "Ichino-ike" or literary "the first pond" (*Ichino* means *the first* and *ike* means *pond*). It is about 900 metres in its circumference, and has flat bottom. It contains only a small amount of water melted down from snow remaining on the surrounding walls, of which the southeastern side is highest, being elevated about 70 metres above the bottom of

the depression. This highest part called Kengamine is the summit of the Ontake, and here we set up one of our stations in the present expedition. Very close to "the first pond" on its northeastern side, "Nino–ike" or "the second pond" is situated about seventy metres below the first, and is about 500 metres round, a large mass of snow accumulating even in the midsummer, on its western wall. The western half of this hollow is pretty deep and is filled with clear sparkling water from the melted snow. To the north of this pond, beyond Ōkawara, there is a steep cliff, the eastern portion of which is called Arumaya–san and the western Marishiten–san (about 180 and 100 metres, respectively, below the summit). Under the cliff, the remaining three depressions, "Sanno–ike," "Shino–ike" and "Gono–ike" are arranged so as to occupy the vertices of an equilateral triangle. They are about 320, 360 and 260 metres, respectively below the summit. "The third pond" is the largest of all, it is about 1000 metres in its circumference and is very deep. It is filled with pure transparent water suitable for drinking. "The fourth pond" is almost filled up with fragments of rocks and volcanic materials, and we can only see a small streamlet struggling through them. "The fifth pond" lying west of the fourth is smallest of all, and it is almost dry. To the north of these depressions stands a peak called Mamahahagatake (about 180 metres below the summit), which forms the northern edge of Ontake. The western flank of the first pond is called Sanjiu–roku–doji (about 20 metres below the summit). Beyond this, to the west rises the peak Mamakodake, which forms, with Mamahahagatake, the boundary line of the two provinces of Shinano and Hida. Midway between the summit and the village Odaki, there is a small conical ridge called Mikasa–yama; the way leading to this is very steep. The southwestern part of a ridge lying between the summit and Mikasa–yama is called Okuno–in (130 metres below the summit), and forms the southern wall of Jigoku–dani or literally "an abyss." The southwestern side of Kengamine is cut down very nearly vertical and about half a kilometre deep, whence Jigoku–dani runs down to the west–south–west direction with steep and almost vertical cliffs on both sides. This is a caldera formed by the volcanic eruption, and from the top of the cliff, a dence mass of vapour curling up from the bottom is seen at some distance from the summit. On descending to the bottom (above 650 metres below the summit), two steam jets will be found, about 18 metres apart. The diameter of the larger jet is about 18 cm, and that of the smaller 10 cm. The forces of the jets are very strong and the rumbling noises are almost deafening, and strong sulphurous odour is sent to the summit by southwestly wind. Thus in general, the sights on the mountain are all very desolate and barren.

On the lower part of the mountain, however, it is covered with splendid forests, and there are three hot springs, of which the first is that at Nigorikawa, already alluded to, about 20 kilometres from the summit in the northwestern side of the mountain; the second is in the neighbourhood of the steam jets in Jigoku–dani; and the third, also called Nigorikawa, is in the village Odaki.

The rock composing the Ontake is augite–andesite, its chief constituents being augite, filspar and magnetite. The compass needle was useless on the mountain, owing to the presence of the last mineral. The bearings of objects on the mountain were therefore determined by referring to the Polaris.

THE STATIONS, AND THE INSTRUMENTS USED.

On the next day (the 27th of July) to our arrival at the foot of the Ontake, we climbed the mountain in order to select suitable positions for our stations, one of which should stand on the summit and the other near the base. We found that almost all cottages on the mountain had been cleared of snow and several pilgrims were already staying in them. The small temple on the summit stands on a rock facing toward the east. A piece of ground about 50 square metres in front of the temple is carefully leveled and enclosed with stone fences. On the left side of the flight of steps leading to the temple, there was a small cottage 6.5 and 13 metres, backed by a steep rock. A mass of snow still remained in it, and there was no occupant at that time. On the south side of the cottage, there was a piece of ground where thermometer room can be set up. We borrowed a corner room of this cottage, and fixed it as our upper station. For the selection of the lower station, we felt some difficulty. We looked down to the northeast on an extensive and nearly plane ground. This is Nishino plain in the village Kaida-mura. Though suitable for meteorological observations, it was too elevated in its position for the lower station, and móreover it was so situated that it was very inconvenient for the communications with the summit. So we abandoned this. The village Odaki, on the southeast, is very narrow in its extent, and a ridge intervenes between it and the summit. Kurosawa in the village Mitake lying to the east, though not quite extensive enough, yet was lowest of all; and besides the great advantage of enabling us to look directly down on it, conveyances of instruments and other communications can be very easily done. Indeed, we could not find any other place more suitable for the lower station, and so we fixed it as our lower station. A room belonging to the village grammar-school was borrowed for that effect.

On clear days, we saw glorious sight from the upper station; but once attacked by furious mountain storm, we were completely buried in dense fogs, and obliged to grope about in the dark. Rain water found its way under the low floor of the cottage; our beds and clothings all get very wet. Frequently, in those stormy days, a crowd of pilgrims entered the cottage. In order to take warmth, they burnt a great quantity of fuel in the cottage, so that the whole cottage was filled with smoke which almost choked our breaths and blinded our eyes. We remained for several days in these unpleasant conditions.

Kurosawa is situated in a valley bounded by Takamori-yama on the north, Nakazawa-yama and Donosawa-tōge on the east, Daigamine on the west and the summit of Ontake on the west. Two rivers, Nishino, and Odake join themselves in the valley, and flowing down along the southwestern side pours into the river Kiso-gawa. Our station was on an elevated part on the northern side of the valley. Though this valley is only twelve kilometres from Fukushima, a town in the highway Nakasendō, the path is very rugged and mountaineous. The steep of Aido in the bordering the east of the valley, is about 200 metres high above the station; our luggages were conveyed by villagers all the way on their backs.

The instruments which we carried to the Ontake are:—

2 Mountain Barometers

2 Aneroids
1 Self-recording Aneroids
2 Hygrometers (Dry and Wet bulb Thermometers)
2 Maximum Thermometers
2 Minimum Thermometers
2 Maximum Solar Radiation Thermometers
2 Minimum Terrestrial Radiation Thermometers
2 Self-recording Metalic Thermometers
4 Ordinary Thermometers
2 Rainguages
2 Anemometers (small Robinson's)
2 Electric Dials, belonging to the Anemometers.

Besides these, we added chronometer watches, box sextants, spirit levels, prismatic compass etc ; and also several thermometers and tools were brought from Gifu and Nagano stations. Owing to this last unexpected additions, we were enabled to complete our observations without any suspension of our work during 43 days, though there had been some damages caused by storms.

THE CLIMATE ON THE ONTAKE.

The climate on the Ontake, during our sojourn from the 1st of August to the 12th of September, was briefly as follows:—

The mean atmospheric pressure on the summit was 532 mm, which is only $\frac{70}{100}$ of that on the sea-level. Hence any labor soon caused fatigue, and our breathes were accelerated, so as every one of us lost his usual vivacity. The air temperature, though it was the hottest season of the year, was 8°.9 C on the average, thus corresponding to the latter part of March or the middle of November in Tokio. Toward the end of August, water, kept in a tank placed outside the cottage, froze to a thickness of about 6 mm. This is, however, said to be an unusual case in this season ; the minimum temperature on the 27th of this month was 8°.4 C even at the lower station, Kurosawa. It being so cold, as mentioned above, on the summit, there remain great masses of snow unmelted even during midsummer in several shaded places. When clear days succeeded for a long time, as it was actually the case in the first decade of September, however, the air temperature reached generally above 20° C by day, and even at night, it remained above 5° C. If any one exposes himself to the direct sunshine in such days its searching effect upon the skin is almost intolerable owing to the great rarefaction of the atmosphere and the scarcity of the aqueous vapour.

In clear and warm days, if climbers well cover themselves and arrive the summit near noon, when wind is usually most weak they may comfortably visit all round the summit. But the best times for taking distant views of the surrounding lowlands are morning and evening when the air is most transparent. During the day, our sights are obstructed by dense vapours, but toward the evening these vapours disappear with the fall of temperature.

When an area of low barometer passes near the mountain the summit is enveloped in

dense clouds with heavy wind and cold rain, which carry off the heat of our bodies very quickly. In such cases, climbers often lose their way and are chilled sometimes to death. In our observations, the air temperature during the days of storms remained almost stationary at 6° C or little above it, with which we felt much colder than in the calm dry days with lower temperature.

We shall now discuss the meteorological conditions on the summit more minutely, comparing them with those on the base.

THE ATMOSPHERIC PRESSURE.

The diurnal variations of the atmospheric pressure observed at the summit and Kurosawa are given in the following table, the corrections for gravity being neglected.

Stations	2 am	4 am	6 am	8 am	10 am	Noon	2 pm	4 pm	6 pm	8 pm	10 pm	M. N.	Mean
Ontake	531.76	531.64	531.84	532.10	532.40	532.45	532.33	532.17	532.11	532.43	532.32	532.02	532.13
Kurosawa	690.84	690.89	691.19	691.11	690.77	690.13	689.69	689.61	689.81	690.71	691.02	691.03	690.57
Diff. (K-O)	159.08	159.25	159.35	159.01	158.37	157.18	157.36	157.44	157.70	158.28	158.70	159.01	158.44

From the above table we see that the mean pressure on the summit is lower than that at Kurosawa by 158.44 mm ; thus the ratio of their pressure is 100 : 77. The greatest difference between them is at 6 am, and the least at 2 pm. Diagram LXIV shows the curves of the diurnal variations at the summit and Kurosawa, and also at the four stations of Gifu in the southwest, Kanazawa in the northwest, Nagano in the northeast, and Numazu in the southeast, within a distance of about 150 kilometres from the mountain.

It will be seen at once in the diagram that the curves for the lower five stations have close resemblances in their forms with one another, but the curve for the summit differs from them. The times of occurrences of the maxima and minima at the summit do not coinside with those at the lower stations and the absolute minimum at the former occurs not in afternoon as it is at the latter but in morning. It is probable that when the air below the summit, whose quantity is about one third of the whole atmosphere, remains stationary, the diurnal variation of pressure is in the same state both at the summit and the base, except its amplitude, but as in day time the air usually expands and in night it contracts, the quantity of air above the summit increases in the former case and decreases in the latter, while the barometer at the base stand stationary, thus making the diurnal variation on the summit dissimiral to the lower as already described. Let us now divide the variation on the summit into two parts ; the first due to the common causes, and the second merely caused by the expansion and contraction of the air. Now assuming the amplitude of the first part to be $\frac{77}{100}$ of the variation at Kurosawa, let us deduct it from the actual pressure on the summit, then the result, shown in the bottom of Diagram LXIV, may be taken as the second part. Comparing this curve with that of the mean temperature

between the summit and Kurosawa, given in the bottom of Diagram LXV, we see that the former remains above the mean or zero-line about an hour longer than the latter does; the latter crossing the zero-line about 1^h 30^m earlier than the former in the ascending stage, and about 2^h 30^m in the descending. The diurnal variation of the pressure at Kurosawa, which is elevated more than 800 metres above the sea level, must be also more or less influenced by the lower strata of the atmosphere. But, the diurnal change of air temperature at Kurosawa, which lies in a valley far distant from sea, being very great, the variation of pressure due the expansion and contraction of the lower air may partly be diminished by that effect, so we find in Diagram LXIV no trace of the phenomena like that at the summit.

On the average for several weeks, the second part of the variation of pressure at the summit is as shown by the curve in the bottom of Diagram LXIV.

But the assumption of taking the mean of the temperatures at the summit and Kurosawa as the mean temperature of the intervening air is not justifiable, especially, when warm and cool currents prevail between them one upon another, or when it is clear sky on one station while cloudy on the other. In such cases, therefore, any trustworthy conclusions can not be drawn by it. Indeed, Diagram LXIII shows us that on their means of every day, variations of the pressure and the temperature are wholly independent.

The extreme minimum pressure observed on the summit was 523.1 mm. at 2.30 am. in the 17th of August, and that at Kurosawa was 683.5 mm. at 4 am. on the same day. The extreme maximum pressure on the summit was 536.4 mm. at 10 am. and 8 pm. in the 3rd of September, and that at Kurosawa was 694.7 mm. at 6 am. on the same day. Thus the range of the atmospheric pressure was 13.3 mm. on the summit, and 11.2 mm. at Kurosawa.

AIR TEMPERATURE.

The diurnal variations of the air temperature on the summit and Kurosawa are given in the following table, and also graphically in Diagram LXV.

Stations	2 am	4 am	6 am	8 am	10 am	Noon	2 pm	4 pm	6 pm	8 pm	10 pm	M. N.	Mean
Ontake	6.93	6.72	7.07	8.93	11.52	12.60	12.38	10.72	8.47	7.41	7.43	7.19	8.95
Kurosawa	16.60	15.96	15.98	19.52	23.92	26.20	26.35	25.37	22.00	19.13	18.03	17.23	20.52
Diff. (K–O)	9.67	9.24	8.91	10.59	12.40	13.60	13.97	14.64	13.53	11.72	10.60	10.04	11.57

Thus the variation of the air temperature on the summit during day time almost interruptedly follows the sun. After 7 pm, it becomes almost nil, yet, the temperatnre continuing to decrease slightly untill it reaches the minimum in the next morning. On Diagram LXV, it will be seen that the curve for the summit was more easily drawn than any others, especially at about the times of both the maximum and the minimum temperatures. These times on the summit somewhat preceed those at the lower stations. The amplitude of the variation on the summit is so nearly one-half of that at Kurosawa, that by doubling the ordinates of the temperature curve for the summit we shall get a curve almost coinciding with

that for Kurosawa. The summit being much elevated, the motion of the atmosphere is very free, especially at night, the wind blows violently, so that, notwithstanding its position of only 1.2 metres above the rocky ground, our thermometer was not, in the least, influenced by the heating nor the cooling of the ground. On the other hand, at Kurosawa, which is surrounded by hills on all sides, the wind is always gentle, especially at night it is almost dead calm, and hence the air temperature must be greatly affected by the heating and the cooling of the ground even to a considerable height above it. This is the reason why we had such great amplitude at Kurosawa.

Our upper station was, however, situated on the eastern flank of the Kengamine, eighteen metres below the very summit, so it could not be said to be the best position. The thermometer room, also, was not very perfect. It was about 1 metre square and faced toward the north. The roof consisted of double sheets of canvas separated by about 0.15 metre, the height of the upper sheet above ground being about $1\frac{3}{4}$ metre on the north and about $1\frac{1}{4}$ metre on the south ; the upper halves of the three sides, east, south, and west were also covered by a sheet of canvas, and a portable screen made of the same material was used to protect the whole from the direct sunshine. As a reference, therefore, to the observations of air temperature at the upper station, we shall describe, by the way, the following experiment conducted at the beginning of September.

A string was stretched horizontally in the open air near the thermometer room at a height of about 0.6 metre above the ground, and from it a thermometer (ordinarily used for determining the temperature of water) was suspended. This thermometer was freely exposed to sunshine or rain throughout day and night, and its reading was taken at fixed times. The result was that its indications were always lower than those of the dry-bulb thermometer suspended in the thermometer room, except at 6, 8 and 10 am. when it received, in the most, direct bright sunshine, by which effect, in spite of our sheltering its bulb from the sun at the time of the observations with our fieldbook, its reading was slightly higher. Though the height of this thermometer above the ground was only one-half of that of the thermometer in the thermometer room, the mean of the differences (0°.8 C) between their readings at 2, 4 and 6 pm was twice the mean of the differences (0°.4 C) at night. From this, we may conclude that the heating and cooling of the ground on the summit do not, in the least, affect the temperature of the air even at such small height. This is, however, not the result obtained from experiment conducted in a precise and perfect manner ; it was continued for only ten days ; the thermometers used were not of same sensitiveness and graduations, and there were several cases when we could not acculately compare them, some minutes having elapsed between the observations of them. But another similar experiment, conducted in front of the temple, gave a result, in the most, like above stated. The reason why the thermometer in open air indicated lower temperature than that in the thermometer room is probably that the former more freely radiated its own heat and was more easily wet by precipitation, than the latter.

On the summit, the mean of the daily maximum temperatures was 14°.73 C and that of the daily minimum 5°.13 C, the range being 9°.60 C. At Kurosawa, the mean of the daily maximum temperatures was 27°.97 C and that of the daily minimum 14°.87 C, the range being

13°.10 C. Thus we see that the maximum temperature on the summit was lower than the minimum temperature at Kurosawa, and that the range at the summit was only three-fourth of that at Kurosawa. On the summit, there was not a day without fog and when it was enveloped by dense cloud, for several days in continuance, the air temperature was almost stationary throughout day and night. If we exclude, therefore, the twelve foggy days,—the 2nd, the 3rd, the 4th, the 10th, the 11th, the 16th, the 17th and the 18th of August, and the 8th, the 9th, the 10th and the 11th of September,—and calculate the mean for the remaining 31 days, the daily maximum temperature will be found to be 16°.44 C and the minimum 5°.01 C, the range being 11°.43 C.

The extreme maximum temperature observed on the summit was 22°.0 C in the 6th of September, and the extreme minimum was 0°.8 in the 19th of August. At 4 am of the next day of the latter date, the wet bulb thermometer showed −1°.8 C. At Kurosawa, the extreme maximum temperature was 32°.2 C on the 14th of August, and the extreme minimum was 8°.9 C on the 30th of the same month.

Let us now consider the diurnal variation of the difference between the temperatures of the summit and Kurosawa. In the mean, the greatest difference is 14°.65 C at 4 pm. and the least 8°.91 C at 6 am. For showing this in a glance, a curve was drawn by dots in Diagram LXV between the curves for the summit and Kurosawa. Although there is a singularity at 4 pm, it seems to have, on the whole, closer resemblances to the curve given in the bottom of Diagram LXIV, than to the curve of the mean of the temperatures of the summit and Kurosawa.

Examining, then, the difference between the daily mean temperatures of both stations, we see that the greatest was 13°.93 C on the 11th of August, and the least 7°.29 C on the 31st of the same month. And, if we compare the actual temperatures of both stations at each time of the observations, it will be found that, there was a great difference of 19°.6 C at 2 pm. of the 11th of September, while the difference at 6 am of the 30th of August was only 2°.6 C.

There were seven days, when the temperature on the summit was below but at Kurosawa above, the mean of the fourty three days. The cases contrary to the above were two, the 30th and the 31st of August. As is shown in Diagram LXIII, cold weather generally prevailed both on the summit and the base, in the last decade of August. But suddenly on the 30th, the temperature on the summit rose 3°.7 C higher than it was on the preceeding day, while at Kurosawa it rose above the mean two days after, at the 1st of September.

Notwithstanding the variation of the difference between the temperatures of the upper and lower stations if we calculate from the mean of the fourty three days, the rate of the decrease of temperature with height for every 100 metres, we have the following numbers:—

	Gifu	Kanazawa	Nagano	Numazu	Mean	Kurosawa
Ontake	0°.57	0°.53	0°.55	0°.55	0°.55	0°.52
Kurosawa	0°.71	0°.55	0°.68	0°.64	0°.64	——

Thus the rate above Kurosawa is smaller than that below it, and the different localities

give different results. The latter incoincidence owes to the influence of the configurations of the localities, and the former agrees with a fact already established by balloon ascents. But one may doubt whether the temperature at Kurosawa was not too low. For this, we shall here add the following remarks. At Nishino, which lies on the northeastern base of the Ontake and about 350 metres above Kurosawa, we took temperature observations at 6 am and 2 pm for twenty days. Calculating out from these observations and those taken simultaneously on the summit, the rate of the decrease of temperature with height, we fount that it is in an exact coincidence with that obtained from Kurosawa and the summit. Again, another similar observations continued for sixteen days at Odaki, which lies on the south-eastern base and 120 metres above Kurosawa, gave a result almost like above, but 0°.01 C greater. From these results, we see that the temperature observed at Kurosawa was not, specially low at least, on the eastern half of the base.

For further remarks, we have the temperature observations at 10 am through August at Takayama (572 m. above the sea level, on the northwest of the mountain) in the province of Hida, and also the similar observations at Nakatsugawa (337 m. above the sea level on the south of the mountain) in the province of Mino. Both of them give greater rates than any of those given in the last table, and the rate deduced from the observations at Takayama is greater than that from the observations at Nakatsugawa. As they are, however, deduced from a single observation a day, and as the diurnal variation of temperature depends very much upon the configurations of localities, as is seen in Diagram LXV, too much weight can not be put on them. For the sake of future references, we shall here summalize the results hitherto obtained by previous observations made both in day and night, and extended for several weeks on the summits of montains or at elevated localities and their neighboring lower stations.

Upper Stations	Lower Stations	Decrease per 100 m	Date
The summit of the Fuji	Tokio, Numazu, Hamamatsu	0.49 C	August 1889
„ „ „ „ „	Yamanaka-mura (990 m)	0.47 C	„ „
Yamanaka-mura	Tokio, Numazu, Hamamatsu	0.53 C	„ „
Gozaishogatake (1216 m)	Yokkaichi	0.62 C	September 1888
Higashi-Hobensan (734 m)	Yamaguchi	0.66 C 0.62 C 0.45 C	August 1890 September „ October „
Karuisawa (944 m)	Nagano (420 m)	0.69 C	August „
„ „	Tokio	0.47 C	„ „

Thus also rates the hitherto obtained do not agree very well with one another. But this is no wonderful matter, if we reflect that it is influenced greatly by the configuration of the localities, seasons, weathers, and some other cauces.

SOLAR RADIATION.

To observe the extreme point of the solar radiation in air every day, a maximum thermometer with black bulb was placed horizontally at a height of 15 cm above the ground and

there it was exposed to the direct sunshine. On the summit, the mean of its daily maximum readings during the fourty three days was 19°.60 C which is 4°.87 C higher than that of the daily maximum air temperatures, while at Kurosawa it was 39°.38 C which is 12°.01 C higher than that of the daily maximum air temperatures. Thus the difference at the summit does not reach even to one-half of that at Kurosawa. The extreme maximum of the solar radiation on the summit was 29°.9 C on the 31st of August, and that at Kurosawa was 47°.5 C on the 14th of the same month. It must be remembered that the solar radiation thermometer at Kurosawa was placed on a greensward, but on the summit, there was no grass, and moreover it was generally very windy and sunlight was very often intercepted by dense cloud, especially at the time in day when the solar radiation usually reaches its maximum point.

TERRESTRIAL RADIATION.

To observe the extreme point of the terrestrial radiation every night, a minimum thermometer was placed on a black board in the open air, and its readings were noted down. The mean of the readings on the summit from the 1st of August to the 6th of September was 2°.91 C, which is 2°.22 C lower than that of the daily minimum air temperatures. At Kurosawa, the mean of the readings for the fourty three days was 12°.72 C which is 2°.15 C lower than that of the daily minimum air temperatures. Thus the differences at both stations are very nearly equal. The extreme minimum of the terrestrial radiation on the summit was −4°.8 C on the 26th of August, and that at Kurosawa was 5°.3 C on the 27th of the same month.

EARTH TEMPERATURE.

A thermometer was placed obliquely with its bulb buried just in the ground (sandy at the summit, but black soil at Kurosawa) and thereby the temperature of the surface-soil was observed six times a day on the summit and twelve times at Kurosawa. On the summit, it was found to be lower than the air temperature at night, but higher by day. On average, the lowest temperature occurs at 6 am, when it is 1°.42 C lower than the air temperature; the highest is at noon, when it is 6°.20 C higher than the air temperature. At Kurosawa, it was higher than the air temperature both in day and night, the smallest difference of it from the air temperature being 0°.46 C at 4 am. and the greatest 11°.65 C at noon. At Tokio, also the temperature of the surface-soil in August was always higher than the air temperature. However, the soils on the summit and the foot are different, so the results obtained are not strictly comparable one another.

On average, the temperature of the surface-soil at any time of the day is not higher than the solar radiation both on the summit and Kurosawa, but on the actual readings, there were often the cases when the surface-soil temperature was several degrees higher than the maximum solar radiation in the same day. On such occasions, we were often obliged to suspend our observation of the temperature of the surface-soil at Kurosawa, owing to the deficiency of the graduation of our thermometer.

Again on the summit, a piece of bamboo stick was buried upright in the ground, and in its hollow, a thermometer was suspended with its bulb 30 cm. below the surface of the ground. The reading was taken at 10 am. and 10 pm. for thirty five days. The result was that the mean of all its readings was 0°.18 C lower than the mean air temperature (observed twelve times a day), and the mean reading at 10 am. was 1°.18 C lower than that at 10 pm. At Tokio, similar observation is made with a thermometer suspended within an iron pipe buried in the ground. There, the mean temperature of the soil, at the point 30 cm. below the surface, for August was 0°.75 C higher than the air temperature, and that at 10 am. was 0°.22 C lower than that at 10 pm. However, the soil of the place where its temperature was observed at Tokio is different from that of the summit.

TENSION OF AQUEOUS VAPOUR.

The diurnal variations of the tension of aqueous vapour on the summit and the base are shown in the next table and also in Diagram LXVI.

Stations	2 am	4 am	6 am	8 am	10 am	Noon	2 pm	4 pm	6 pm	8 pm	10 pm	M. N.	Mean
Ontake	5.81	6.04	6.22	6.66	7.43	8.02	8.17	7.82	6.86	6.26	6.19	5.93	6.78
Kurosawa	13.66	13.17	13.11	14.37	15.19	15.13	15.29	15.49	15.80	15.23	14.71	14.11	14.60
Diff. (K–O)	7.85	7.13	6.89	7.71	7.76	7.11	7.12	7.67	8.94	8.97	8.52	8.18	7.82

Thus the variation of the tension of aqueous vapour on the summit resembles very much with that of the air temperature, except that its minimum occurs at about half past 1 am., so as it is already in its increasing stage when the temperature attains its minimum value. On the lower stations, the time of the minimum tension generally coincides with that of the minimum temperature, but the maximum does not, and occurs at about 6 pm, 10 am, or 2 pm. Generally speaking, on the lower regions, the tension of vapour suddenly increases from the sunrise till about 10 am. After that time, vapour quickly ascends or is carried up by ascending air currents to the upper regions, so much as this causes a decrease of the tension for a time in the lower regions, where new vapour is continually supplied from the moisture on the earth. But toward evening, these ascending currents gradually cease, and at about sunset, a great accumulation of vapour ensue. However, the variation just mentioned is that peculiar to summer at low level stations, and in other seasons it nearly follows the variation of the air temperature as it was on the summit.

The variation on the summit is mainly caused by the gradual ascending of vapour from the lower regions in morning, as we have just mentioned, and next retiring toward evening by the cooling of the atmosphere, notwithstanding there exists such peculiar variation as above at low level stations.

Although the time of the minimum tension does not coincide with that of the minimum temperature on the summit, while it does on the foot, the difference of the tensions at the times of the maximum and the minimum temperatures on the summit is nearly equal to that

on the foot.

The tension on the summit is only $\frac{34}{100}$ of that at Gifu and $\frac{46}{100}$ of that at Kurosawa. Thus the rate of its decrease with height is more rapid than that of the atmospheric pressure. If we calculate the tension on the summit from that of Gifu by Hann's formula

$$e = \mathrm{E}\,10^{-\frac{h}{6517}},$$

we get 6.88 mm. and from that of Kurosawa 6.80 mm., which compared with the observed value 6.78 mm. differ from it only by 0.10 mm. and 0.02 mm. respectively.

The extreme maximum tension on the summit was 10.2 mm. at the noon of the 12th of September, and the extreme minimum was 0.1 mm. at 10 pm. of the 29th of August and at 2 am. of the next day, the 30th. The extreme maximum tension at Kurosawa was 19.9 mm. at 2 pm. of the 13th of August, and the extreme minimum was 8.5 mm. at 6 am. of the 27th of the same month.

RELATIVE HUMIDITY OF AIR.

The mean values of the relative humidity (expressed in percentages) at the times of the observations on the summit and the base are given in the following table:—

Stations	2 am	4 am	6 am	8 am	10 am	Noon	2 pm	4 pm	6 pm	8 pm	10 pm	M. N.	Mean
Ontake	76.1	80.7	81.7	79.2	75.9	75.9	78.3	82.3	82.9	80.3	79.0	76.4	79.0
Kurosawa	96.4	96.8	96.0	84.3	69.2	60.8	61.0	65.7	80.9	92.1	95.2	96.1	82.9
Diff. (O-K)	20.3	16.1	14.3	5.1	—6.7	—15.1	—17.3	—16.6	—2.0	11.8	16.2	19.7	3.9

The curves drawn with these figures are shown in Diagram LXVII. In the Diagram we see that on the lower stations, the humidity has only one maximum and minimum in its diurnal variation, the times of their occurrences being just opposite to those of the air temperature. But on the summit, there are two maxima and minima in a day, and the time of the second minimum just coincides with that of the minimum tension. As the relative humidity of air is the ratio which the actual amount of vapour bears to the saturation amount for the temperature at the time of the observation, and as the variations of the air temperature and of the tension of aqueous vapour on the summit have already been mentioned, we have but little to state farther about the variation of the relative humidity.

According to the Diagram LXVII, the variation of the relative humidity on the summit seems to be very small when compared to the lower stations. But actually it varies very suddenly at times and its variation from day to day is tolerably great as is shown in Diagram LXIII. Of the 516 observations on the summit there were 203 cases when the humidity reached saturation, caused always by the cloud invasion. But at Kurosawa the saturation happened only 17 times.

The minimum of the relative humidity at Kurosawa was 39 at the noon and 2 pm. of the 30th of August. On the summit, however, there were fourty cases when the relative humidity was less than this, and indeed, at 10 pm. of the 29th and 2 am. of the 30th of August, it was only 2. Such dryness has not ever happened at all our meteorological stations since

their establishments, and in fact, it is not easily obtainable. At 10 pm. of the 29th, the dry bulb thermometer indicated 6°.9 C and the wet bulb thermometer −1°.4 C, and yet, we saw, the water on the bulb was not froze.

WIND.

The observed numbers of winds in several directions are as follows:—

Stations	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Calm
Ontake	19	2	3	2	0	2	2	6	18	38	75	69	152	57	51	20	0
Kurosawa	17	5	15	5	27	9	45	13	48	9	14	3	6	4	12	4	280
Diff. (O-K)	2	—3	—12	—3	—27	—7	—43	—7	—30	29	61	66	146	53	39	16	—280

Thus at Kurosawa, it was calm at most times; especially, from 8 pm. to 8 am. of the next day, it was in the ratio of eight in ten. But on the summit, we observed no calm. The most predominant wind at Kurosawa was southerly and the next one was southeasterly, and on the whole, easterly winds more prevailed than westerly. On the summit, however, westerly winds predominated, and easterly ones were very rare, east being entirely absent. Generally, easterly winds were observed in day time, when there was a strong ascending current of air, which make the direction of wind variable and its force weak. Thus, the mean velocity of the easterly winds, (N—SSE), which were observed 36 times in whole, is only 4.7 m. p. s. and actually there was not a case when the velocity reached 10 m. p. s. excepting a south-south-east wind of 27.3 m. p. s. and a southeast wind of 11.2 m. p. s. South wind on the summit was usually most strong, its mean velocity being 17.4 m. p. s., and the next strong was south-south-east wind with mean velocity 15.9 m. p. s. These winds were generally observed during storms, and when a westerly wind changes to a southerly wind accompanied by fog, it was a sure indication of a storm.

The diurnal variations of the velocity of wind on the summit and the base are as follows:—

Stations	2 am	4 am	6 am	8 am	10 am	Noon	2 pm	4 pm	6 pm	8 pm	10 pm	M. N.	Mean
Ontake	14.64	15.08	14.28	11.80	9.73	7.75	7.27	7.95	9.68	11.67	12.84	14.17	11.41
Kurosawa	0.24	0.36	0.35	0.49	1.62	2.07	2.23	2.17	0.90	0.29	0.26	0.40	0.95
Diff. (O-K)	14.40	14.72	13.93	11.31	8.11	5.68	5.04	5.78	8.78	11.38	12.58	13.77	10.46

With these figures, curves were drawn in Diagram LXVIII.

On the summit it was unfrequent case that the force of wind was below 3, by scale 0-6, at any time throughout the day, so that, it is very nearly 4 even on the general mean. The most remarkable point which distinguishes the summit from the foot is that the times of the maximum and the minimum of the wind force are just interchanged. As already mentioned, the wind in day time on the summit being much influenced by the ascending current of air, its force becomes weaker, while that on the foot becomes stronger by the same cause. Hence the characteristic winds on the summit are those blowing at night from westerly directions, which

are common to the upper currents at this latitude, as is seen from the observations of upper cloud movements. Thus the westerly winds on the summit are totally different from the local winds on the lower stations.

The ascending current of air by day was not unfrequently very intense. Sometimes we saw a fine stream of cloud ascending from among a thick forest on the base, and at once a great mass of cumulus, reaching higher than the summit, was formed on the flanks of the mountain. In such cases, if a piece of paper, a shaving or any other light bodies be thrown upward, it was soon taken up by the current and carried so high away that in a few moments we lost sight of them.

The greatest velocity of wind observed on the summit was 45.2 m. p. s., which is the mean of twenty minutes from 11.10 pm. to 11.30 pm. of the 16th of August. Had the observation been taken for a more short interval of time, the velocity would have come out to be greater, and there was every reason to think that it was twice as great in a severest moment. For the minuter details, see hereafter "The Storm of the 16th and 17th of August." The greatest velocity at Kurosawa was 8.0 m. p. s. at 8 am. of the 17th of August.

RAIN.

The rain gauge on the upper station was set on the very summit, except which there was no suitable position in the neighborhood of the station. On the summit, rain was generally accompanied by strong gales as we expected, and hence, to lessen hard labour of climbing up in such severe weather, we determined to take only six regural observations a day. The total amount of rain at each time of the observations for the fourty three days and the number of rainy days are given in the following table.

Stations	Amount of Rain							No. of days with Rain
	2 am	6 am	10 am	2 pm	6 pm	10 pm	Total	
Ontake	141.9	147.4	149.1	146.3	101.4	82.1	768.2	24
Kurosawa	66.7	77.4	78.9	40.2	34.2	30.3	327.7	17
Diff. (O–K)	75.2	70.0	70.2	106.1	67.2	51.8	440.5	7

From this table we see that both on the upper and the lower stations, the amount of precipitation was more plentiful in the forenoon than in the afternoon, and that the total amount on the summit far exceeded that on the base, as such were the cases on Mount Fuji in 1889 and also on Mount Gozaishogatake in 1888. The number of rainy days on the summit exceeded that at Kurosawa by 7 days, and the total amount during these seven days was 13.8 mm. Subtracting this from 768.2 mm, the total amount of rain on the summit, we get 754.4 mm. which is still greater than twice the total amount at Kurosawa.

We never saw big drops of rain on the summit as we saw on Mount Gozaishogatake or such as we see usually in the case of heavy rain at lower stations. Rain-drops on the summit were generally fine and appeared to be dense. The maximum value of the precipita-

tion for a period of four hours on the summit was 58.1 mm. from 10 pm. of the 21th to 2 am. of the 22nd of August. At Kurosawa, it was 52.9 mm. from 4 am. to 8 am. of the 17th of August.

CLOUD.

The diurnal variations of the cloudiness on the summit and the base are shown in the following table :—

Stations	2 am	4 am	6 am	8 am	10 am	Noon	2 pm	4 pm	6 pm	8 pm	10 pm	M. N.	Mean
Ontake	5.7	5.6	6.0	6.3	7.1	8.4	8.7	8.3	6.5	4.3	5.3	5.6	6.5
Kurosawa	5.5	5.7	7.9	6.1	6.2	6.6	6.6	6.2	6.1	4.5	5.0	5.1	6.0
Diff. (O-K)	0.2	—0.1	—1.9	0.2	0.9	1.8	2.1	2.1	0.4	—0.2	0.3	0.5	0.5

From this table, we see that at both stations the amount by day is greater than that at night and this is especially so on the summit. On the mean, the amount on the summit is slightly greater than that at the base (generally it resembles with the amount of rain). But, as the visible sky at Kurosawa is limited by surrounding hills, the amount observed there may be sometimes too great or too small than the truth. On the summit, also, though sky is not limited, yet when cumulus clouds appear on the flanks of the mountain, it is in such a view as if we are standing within a cave of cloud, or it sometimes happenes that, on a clear day, dense fog brood over it, and we estimate, then, the cloud amount as 10. If these fogs and upper part of cumulus be excluded, the amount observed on the summit is chiefly that of upper clouds. The number of times when the summit was covered by fogs is given in the following table :—

Station	2 am	4 am	6 am	8 am	10 am	Noon	2 pm	4 pm	6 pm	8 pm	10 pm	M. N.	Total
Ontake	21	21	17	18	20	23	22	20	17	13	18	19	229

Thus we see that fog was observed most frequently at noon, and least at 8 pm.—on the whole it was less in morning and evening. If we divide the total number 229 by 12, the number of daily observations, we get 19. Thus we may say that of the fourty three days, the summit was enveloped by fog in nineteen days. Though we had no means of looking on the surrounding regions in these cases, we may say, considering from a view before or after the cases that the Ontake is more often covered by fog than any other mountains.

To observe the duration of sunshine as a reference to the cloud observations, a sunshine recorder was prepared and set on the summit, and the tracings were taken for 36 days from the 1st of August to the 5th of September. Of these 36 days, more or less tracings were left in 22 days or six-tenths of the whole. They were most in the interval 8–10 am., and least in noon–3 pm., the latter being less than one half of the former.

HEIGHTS OF THE ONTAKE AND KUROSAWA ABOVE THE SEA LEVEL.

There may be previous determinations of the height of the Ontake above the sea level by the observations of the atmospheric pressure. But we think the number of observations must have been very small. Now our simultaneous observations of the atmospheric pressure during fourty three days will enable us to furnish more trustworthy values than any previously obtained. To do this, the International Meteorological Table gives us, as the best, Ruhlmann's formula which is

$$Z = 18400\,(1.00157 + 0.00367\,\theta)\left(\frac{1}{1-0.378\frac{\varphi}{\eta}}\right)(1 + 0.00259\cos 2\lambda)\left(1 + \frac{Z + 2z}{6371104}\right)\log\frac{H_o}{H},$$

where Z is the required difference of heights of the two stations, θ the mean temperature, φ the mean tension of the aqueous vapour, η the mean atmospheric pressure, λ the mean latitude, Z the approximate value of Z, z the height of the lower station above the sea level, and H_o, H are the observed pressures of the upper and the lower stations respectively.

Now our data are:—

Stations	Latitude	z	Atmospheric Pressure	Temperature	Tension
	° ′	m	mm	°C	mm
Ontake	35 53	......	532.13	8.95	6.78
Kurosawa	35 50	......	690.57	20.52	14.59
Gifu	35 27	15.0	758.09	26.35	19.86
Kanazawa	36 33	29.0	756.77	24.95	18.35
Nagano	36 40	420.4	723.49	23.34	16.24
Numazu	35 06	10.5	758.90	25.80	19.66

The heights of the Ontake and Kurosawa above the sea level deduced from the observations of the four meteorological stations are found to be as follows:—

Stations	Gifu	Kanazawa	Nagano	Numazu	Mean
	m	m	m	m	m
Ontake	3055.6	3068.3	3046.1	3060.0	3057.5
Kurosawa	833.9	830.3	826.8	837.9	832.2

Thus, we see that the difference of the heights of the Ontake and Kurosawa is 2225.3 metres. Again if we calculate it directly from the observations at these two stations we get 2216.4 metres which are considered more trustworthy. To this last, adding the height of Kurosawa above the sea level, we get 3048.6 metres as the height of the Ontake above the sea level.

If we take the mean atmospheric pressures observed at all the stations in this country from the 1st of August to the 12th of September, and thereby plot down the isobars at this season, we find that the isobar passing through the Ontake ran from the east of Gifu to the west of Nagano, with the lower pressure on its western side (Kanazawa), and the higher on its eastern side (Numazu). Now, as the station of Gifu is nearest to the Ontake than any of the four stations, and as the height deduced from its observations almost coincides with the mean

value, we shall take the former as a value more approximate to the truth rather than the latter.

But the temperature at Gifu seems to be too high. Let us therefore calculate the temperature at Gifu backward from the temperature on the summit, by using the mean rate of the decrease of air temperature with height between the summit and the four stations. Then we get 25°.72 C, which is 0°.63 C lower than the observed temperature. Now take this calculated temperature, and the observed pressure and the tension of aqueous vapour at Gifu, and calculate the height of the Ontake. Proceeding in this way, we get 3052.4 metres as the height of the Ontake above the sea level, and 833.0 metres as that of Kurosawa. Again if the last number be added to the height of the Ontake above Kurosawa, we get another value 3049.4 metres as the height of the Ontake above the sea level. The mean of these two values is 3050.9 metres, and this coincides very nearly with the mean of the two values deduced from the observations at Gifu and Nagano, which lie on the opposite sides of, and nearest to, the isobar passing through the Ontake.

The barometer on the upper station was 18.4 metres below the head rock on the very summit. Hence the height of the very summit of the Ontake above the sea level may be taken as 3069 metres.

It is said that the height deduced from the observation of the atmospheric pressure in summer is greater than that determined in winter. In order to test how far our present determination is affected from this source, we made some calculations. The mean temperature between the summit and Kurosawa was highest at noon and lowest at 4 am., their difference being 7°.06 C, and the heights deduced from the observations at these hours differ by 43.0 metres, being higher at noon than at 4 am. Again if we take the mean temperature for every five days, the highest is 16°.05 C (the 3rd—the 7th of September) and the lowest is 12°.37 C (the 19th—the 23rd of August), their difference being 3°.68 C, and the difference of the calculated heights for these two periods is only 0.9 metre.

Now, as the mean of the observed temperatures at the two stations may be too high or too low at different times, and there may happen sometimes an unequilibrium of the atmosphere, the results deduced from the observations at different seasons, different times, or different weathers could not be necessarily expected to be quite near each other. However, the seasonal variation of air temperature is not certainly so rapid as the diurnal, and hence we may safely conclude that, although our present determination is from the observations in a small part of the year, it does not so much deviate from the truth as half the difference between the heights, deduced from the observations at noon and that at 4 am.

THE STORM OF THE 3rd AND THE 4th OF AUGUST.

From about 10 pm. of the 1st of August, the weather became threatening on the summit and we were enveloped in dense fog; the wind gradually increasing its force, blowing from the westerly points; the barometer showing a slight falling tendency. On the forenoon of the 2nd, it was still foggy with rain, and on the afternoon we heard rumbling sound of thunder with lightning to the southwest and also to the north. At night, the barometer rose and from

about 10 pm. we caught now and then glimpses of the faint lights of some stars through cloud, and we expected fair weather on the morrow. But on the 3rd it was still fogy with rain throughout the day. On the afternoon, the barometer commenced to fall rapidly, and when the direction of the wind turned toward southwest and south-south-west, the velocity became considerably great, and at 10 pm. it reached 37.3 m. p. s. The barometer reading reached to its minimum 531.0 mm. at 2 am. of the 4th. Since then, the wind gradually subsided with rising barometer and after 6 am. the rain ceased and the fog cleared, the sun shining again in blue sky. Examining the weathermaps for these days we see that, at 6 am. of the 3rd, there was an area of low, but not very low, pressure on the Corea strait. This marched straight toward northeast across the Sea of Japan, and its center approached nearest to us at the midnight. On the same day, there was also a high pressure on the southeastern coast of Japan, and thus the Ontake was situated just between them. As the path of the centre of the depression was not near the Ontake, the fall of our barometer and the gust of wind were not very remarkable.

THE STORM OF THE 16th AND THE 17th OF AUGUST.

On the forenoon of the 16th of August, the summit was covered by fogs, and the barometer lowered considerably, thus showing signs of stormy weather. On the afternoon, the barometer falling still more, the wind became very furious, blowing from a southerly direction. At night, the wind and rain further increased their intensities, and at last, in spite of all our precautions made on the thermometer room against severe storms like those experienced on the previous expeditions to Mount Fuji and Mount Gozaishogatake, it was upset and completely destroyed by the storm at about half past 11 pm. The velocity at this time was 45.2 m. p. s. (in the mean of the twenty minutes), and this was the maximum velocity observed during the storm. But we may estimate the absolute intensity of the wind to have been as great as double of this, for, when a violent gust of wind came on, continuing for a few minutes, the index which indicates every one-tenth of a kilometer on the dial of the electric apparatus of the anemometer moved so rapidly as the second hand of a watch does. The fall of the mercurial column was considerable, making oscillations greater than 2 mm. in range. Out of doors, every thing was dark by dense fogs; furious winds furled up sand and small pebbles off the ground, so that we could not walk upright, and was obliged to creep on the ground taking hold of any thing for support, and yet we were several times about to be blown away by the gale. The raingauge, which is 0.5 metre long and had been half buried in the earth, tilted; the wind vane, firmly fixed to an end of a stout rod 18 feet long and fastened to a pole of the stone fence of the temple, was broken off from the rod and blown away to the neighborhood of "San-no-ike" (where it was found several days after); and that pole of the stone fence itself at last gave way. The barometer indicated 523.1 mm. at half past 2 am. of the 17th, and this was the minimum pressure during the storm. After that it began to rise, and the wind somewhat abated, but it rained and was still windy throughout the day. At 5 pm. of the next day, the 18th, the dense fog cleared all at once, and we saw all the lowlands already clad in scarlet sunshine.

The observations during the storm were as follows:—

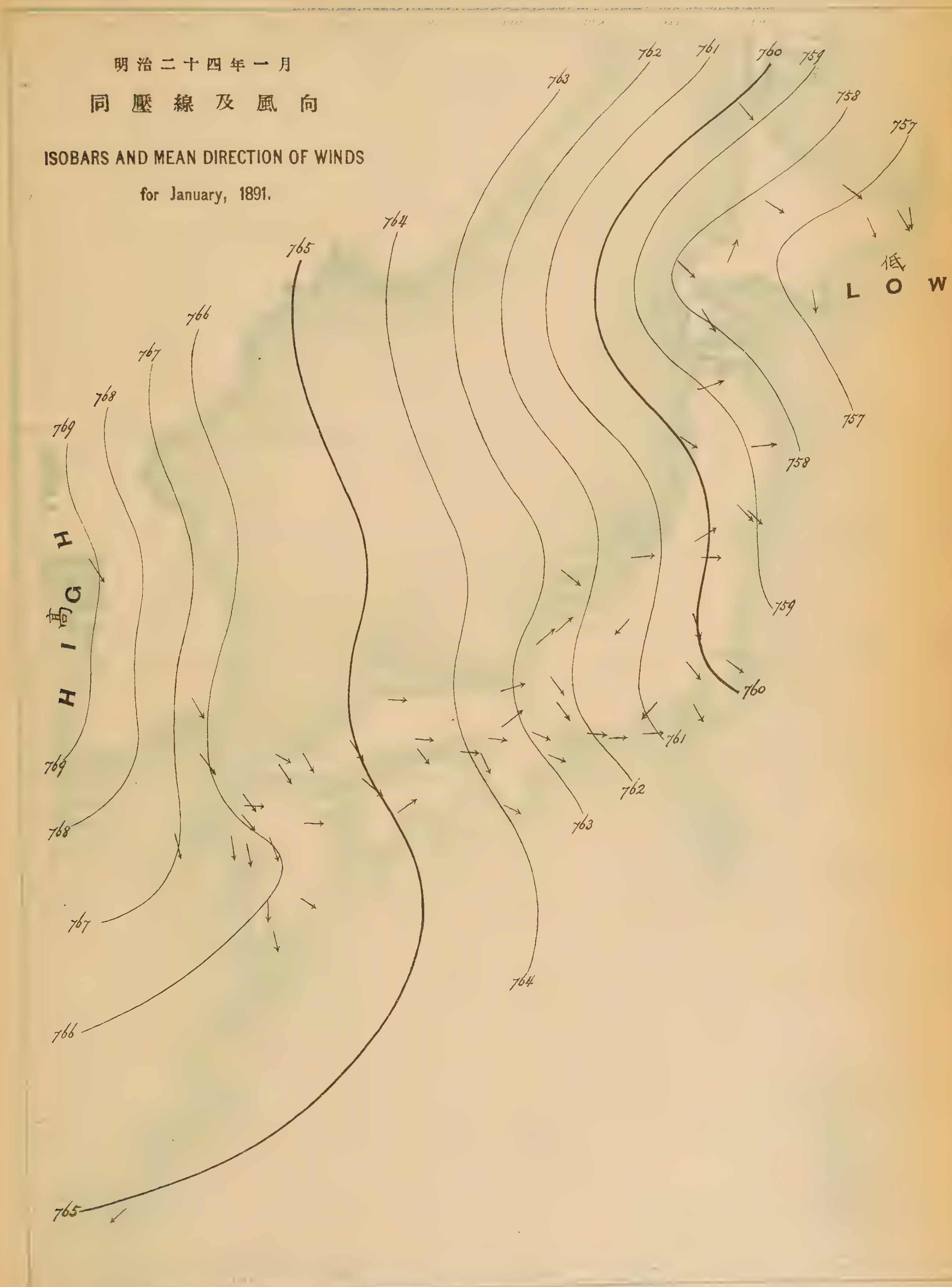
Date	Hour	Barometer	Temperature	Wind		Remarks
				Direction	Velocity	
	h	mm	°C		m. p. s.	
16	6.00 pm	529.1	8.5	S	22.7	rain, fog
16	8.00 pm	528.9	7.7	S	23.0	rain, fog
16	10.00 pm	526.1	8.4	S	27.1	rain, fog
16	11.30 pm	......	...	S	45.2	rain, fog
16	M. N.	524.4	9.4	SW	33.5	rain, fog
17	0.30 am	523.3	8.3	SW	44.3	rain, fog
17	1.00 am	524.3	8.3	SW	32.5	rain, fog
17	1.30 am	524.4	8.6	SW	33.7	rain, fog
17	2.00 am	523.8	9.3	SW	30.3	rain, fog
17	2.30 am	523.1	9.4	SW	31.4	rain, fog
17	3.00 am	523.5	8.9	SW	31.1	rain, fog
17	3.30 am	524.0	9.5	SW	36.4	rain, fog
17	4.00 am	524.6	9.3	SW	25.0	rain, fog
17	5.00 am	525.2	9.6	W	26.2	rain, fog
17	6.00 am	525.3	9.4	W	22.1	rain, fog

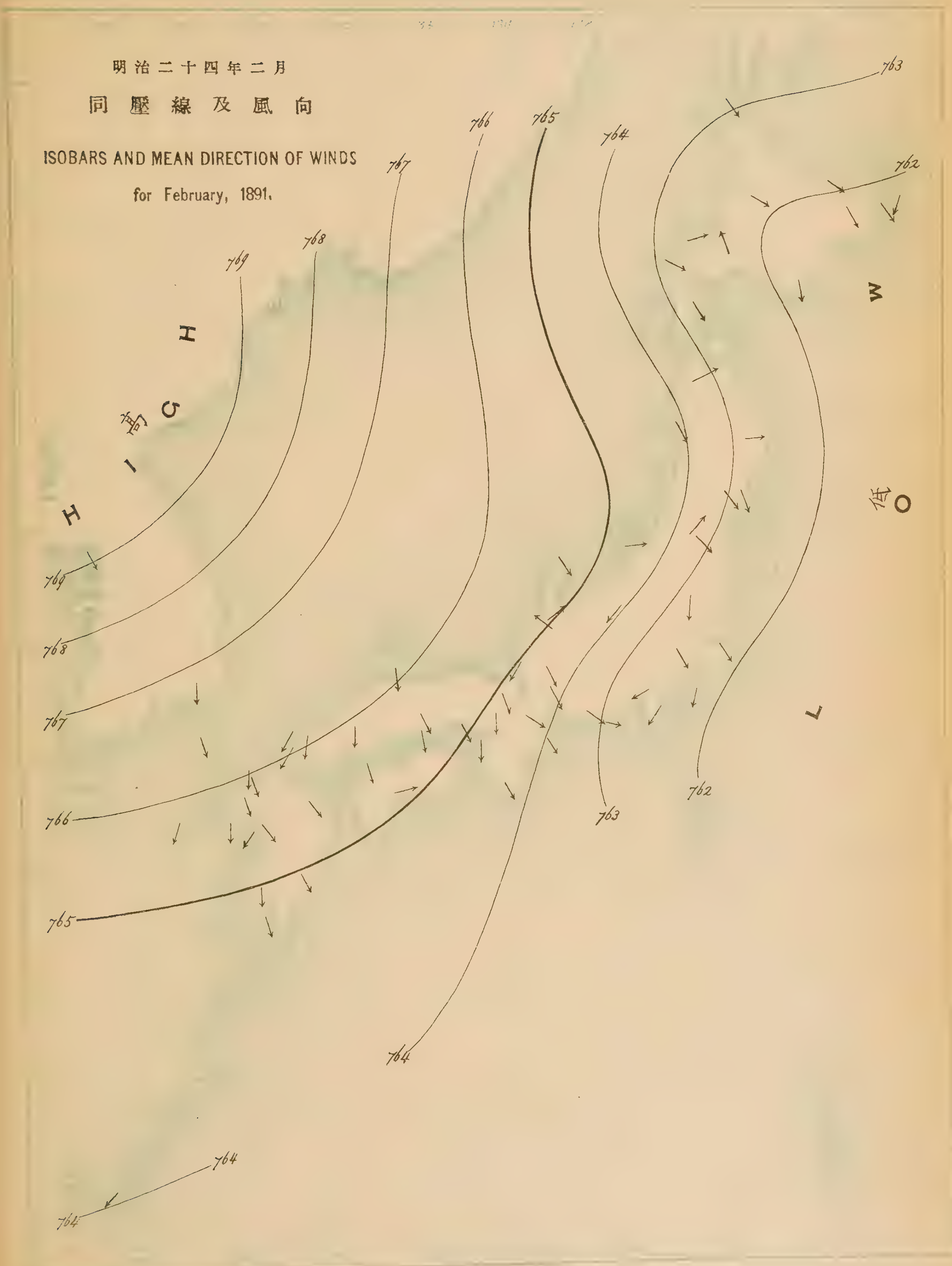
The amount of rain could not be observed regularly at the fixed times. We got 77.9 mm. from 10 pm. of the 16th to the afternoon of the 17th, and the total amount during the storm—from 6 pm. of the 16th to 6 pm. of the 17th—was 171.2 mm.

If we trace the path of the center of this storm, we see that a low pressure of 736 mm. was off the coast of Tosa at 2 pm. of the 16th, whence it passed through Shikoku and the western part of the Main Island, and entered the Sea of Japan. Thence turning round the peninsula of Noto and the island of Sado, it passed again over the northern part of the Main Island and marched on to the Pacific.

The time of the fiercest gale on the summit was when the center was about to enter into the Sea of Japan across the western districts of the Main Island. The closest proximity of the center to the Ontake was at 2—3 am. of the 17th when it was off the coast of Kaga, about 150 kilometres distant from the Ontake. This time coincided exactly with the time of the lowest pressure on the summit. At all times during the storm, the directions of wind on the summit were very nearly parallel to the isobars.

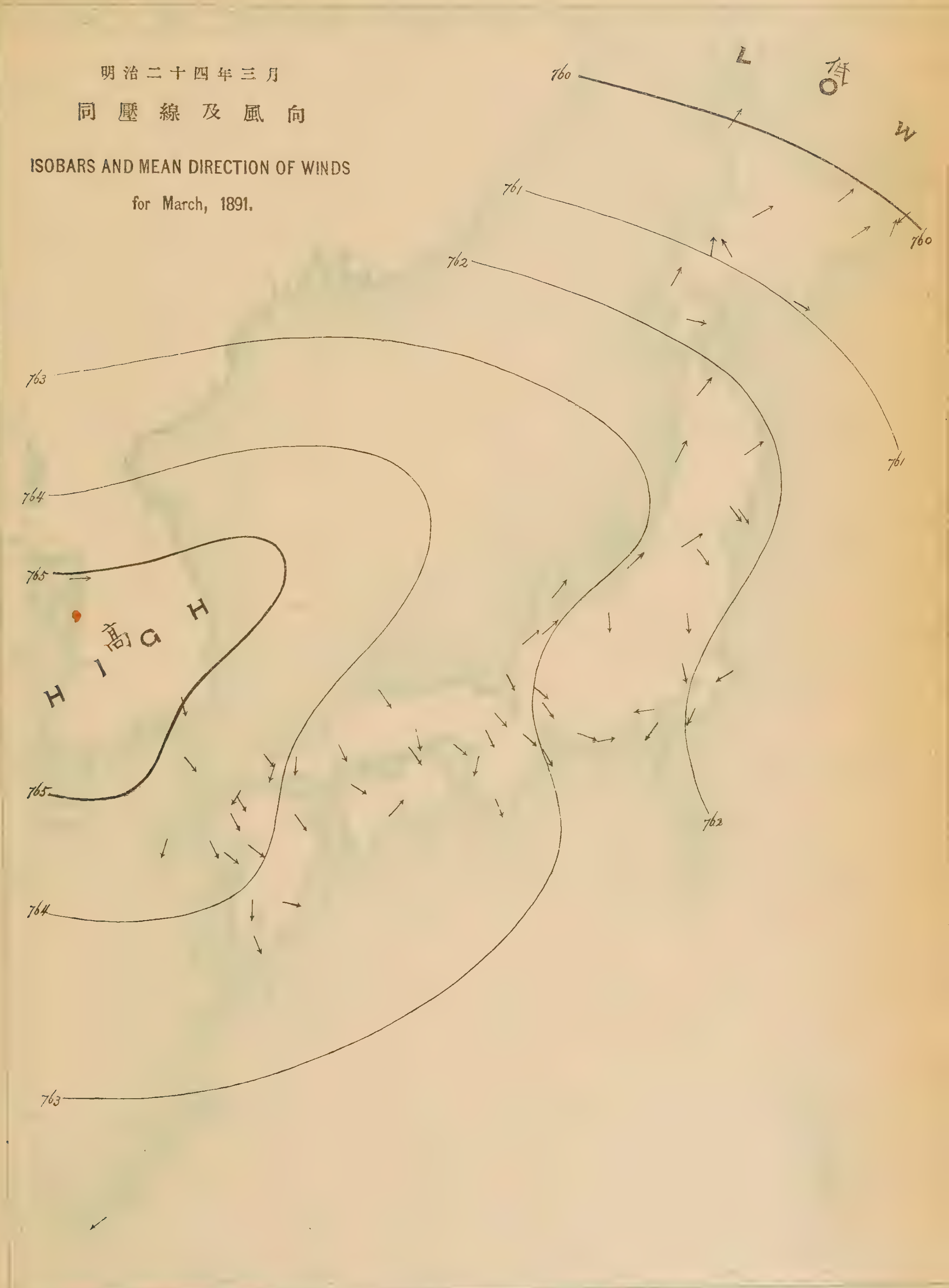
FINIS.

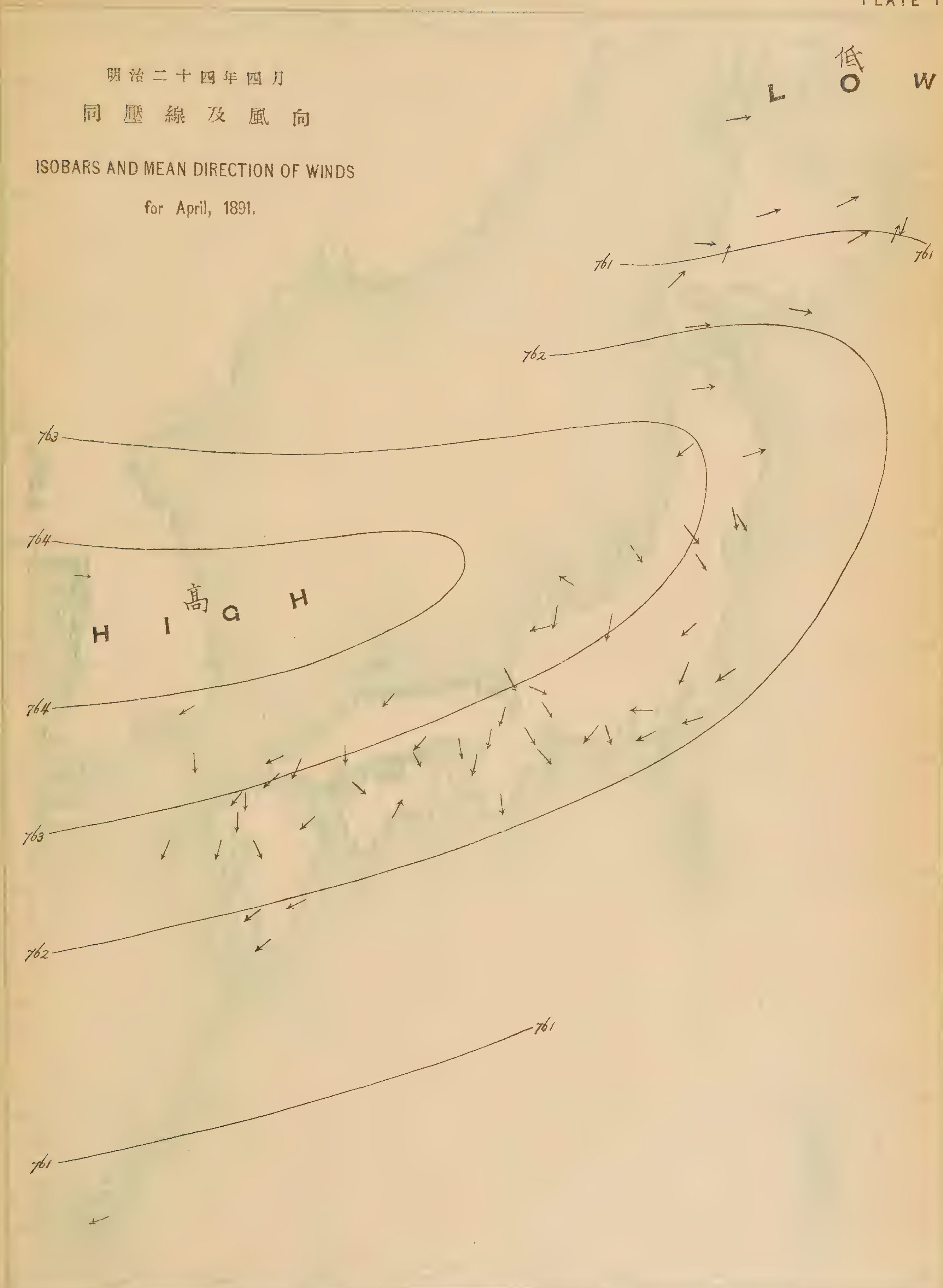

明治二十四年一月
同 壓 線 及 風 向
ISOBARS AND MEAN DIRECTION OF WINDS
for January, 1891.
HIGH
高
LOW
低
765
766
767
768
769
764
763
762
761
760
759
758
757


明治二十四年二月
同壓線及風向
ISOBARS AND MEAN DIRECTION OF WINDS
for February, 1891.
HIGH 高
LOW 低
769
768
767
766
765
764
763
762
769
768
767
766
765
764
763
762
764
764

明治二十四年三月
同壓線及風向

ISOBARS AND MEAN DIRECTION OF WINDS
for March, 1891.



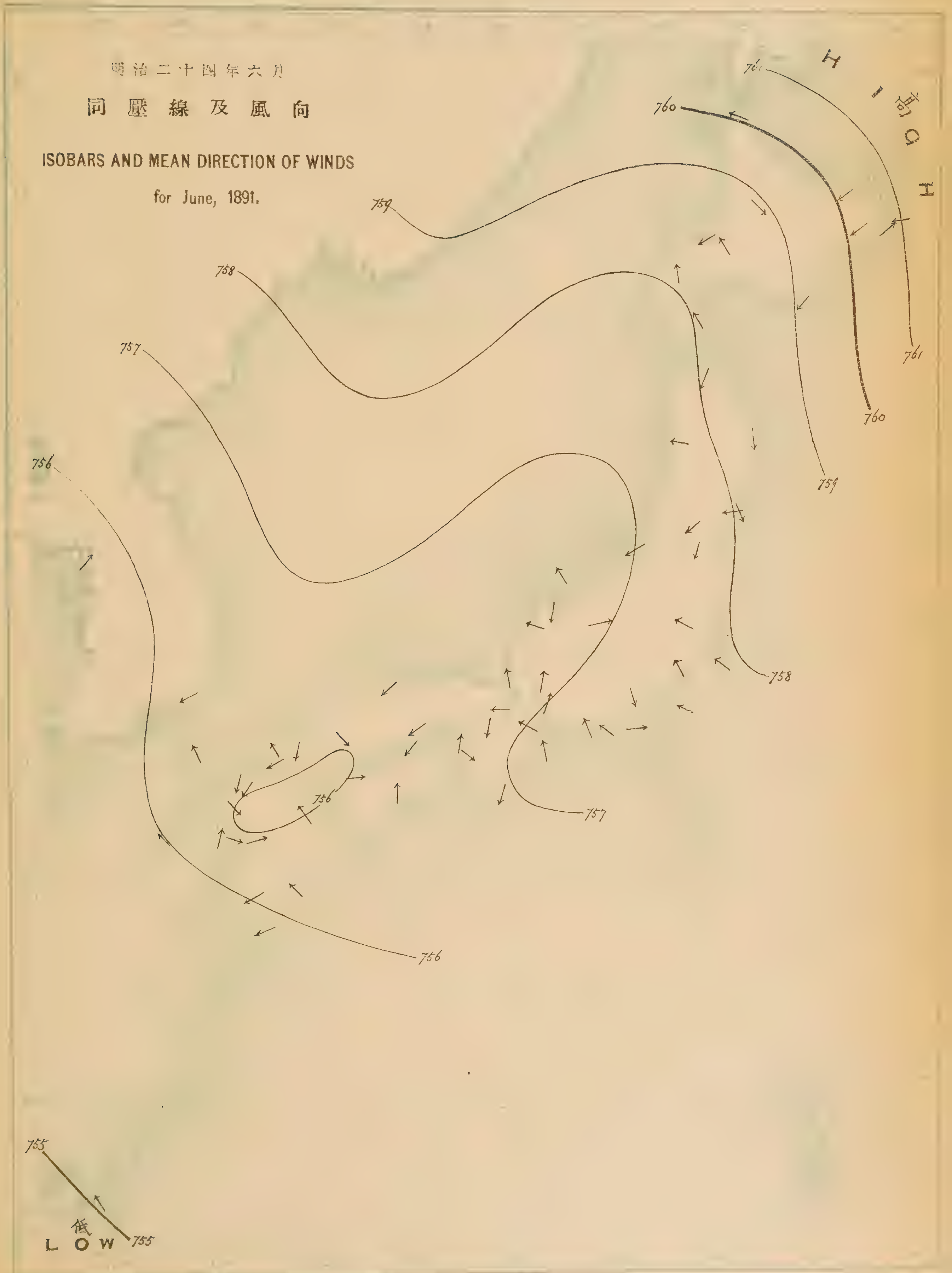

明治二十四年四月
同壓線及風向
ISOBARS AND MEAN DIRECTION OF WINDS
for April, 1891.
低
LOW
761
761
762
763
764
高
HIGH
764
763
762
761
761

第五圖

PLATE V


明治二十四年五月
同壓線及風向
ISOBARS AND MEAN DIRECTION OF WINDS
for May, 1891.
低
L
O
W
754
755
756
757
758
高
H
I
G
H

第六圖


明治二十四年六月
同壓線及風向
ISOBARS AND MEAN DIRECTION OF WINDS
for June, 1891.
HIGH
高
LOW
低
761
760
759
758
757
756
755

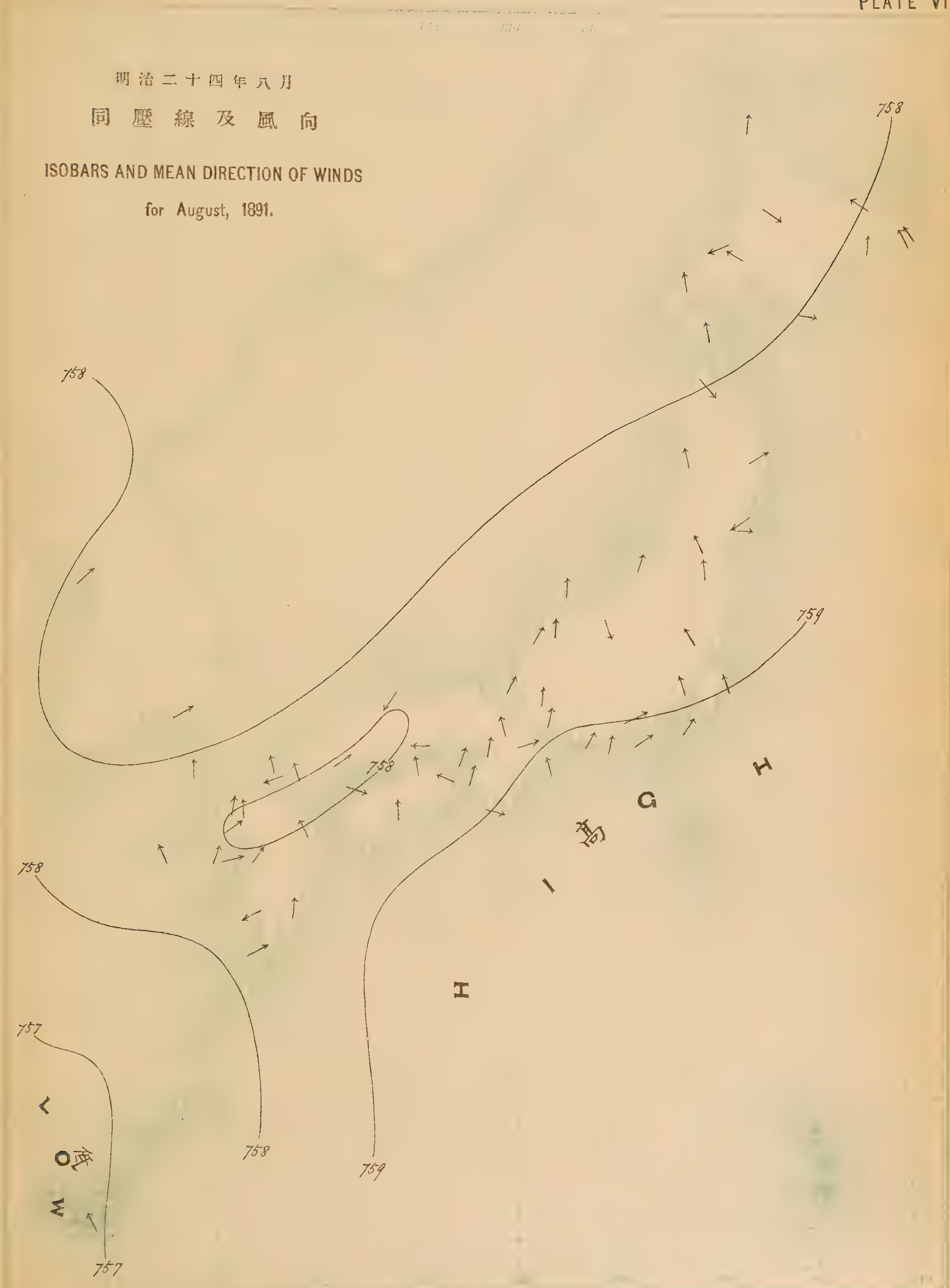
第七圖

PLATE VII



第八圖

PLATE VIII

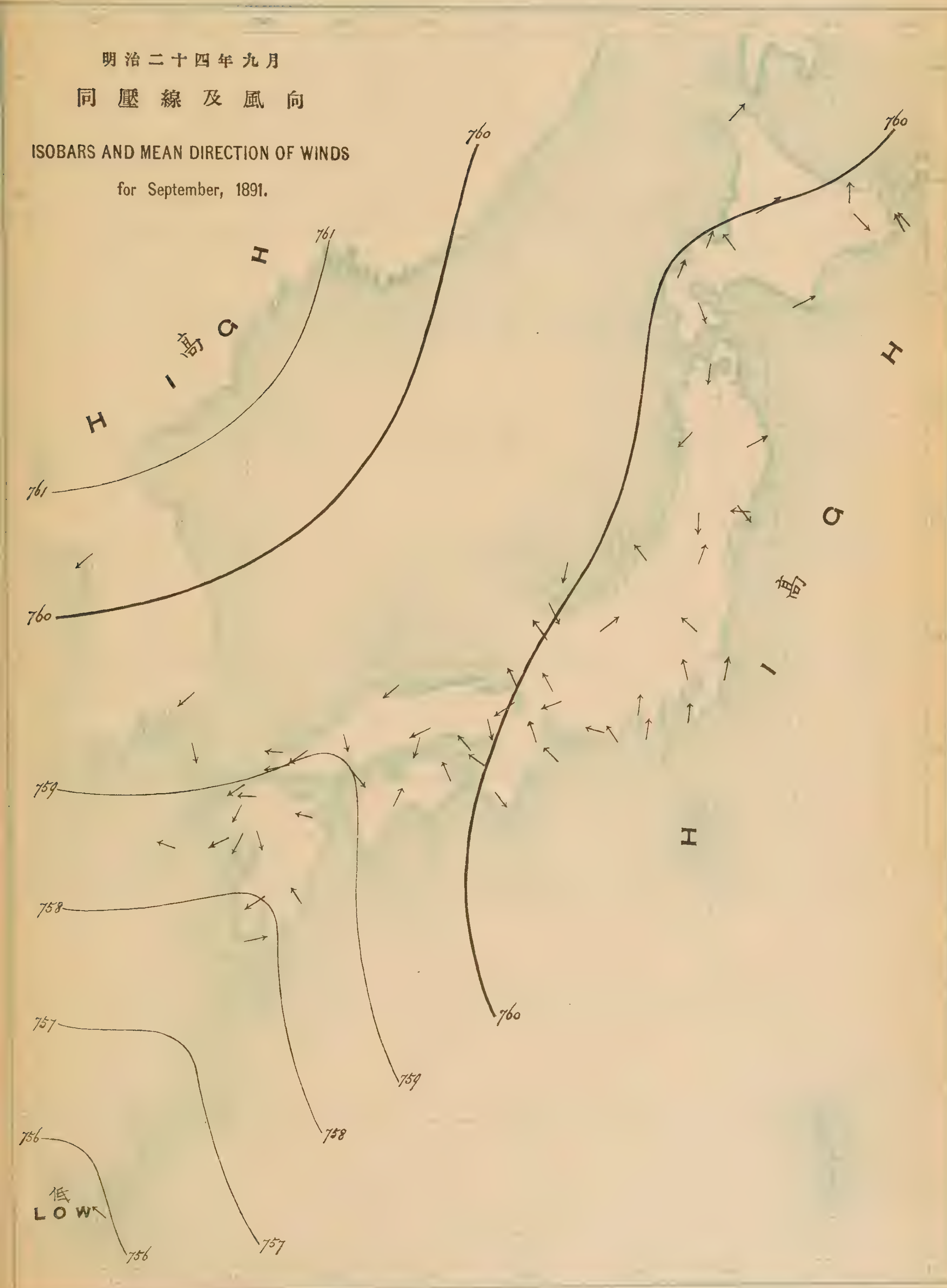


明治二十四年八月

同壓線及風向

ISOBARS AND MEAN DIRECTION OF WINDS

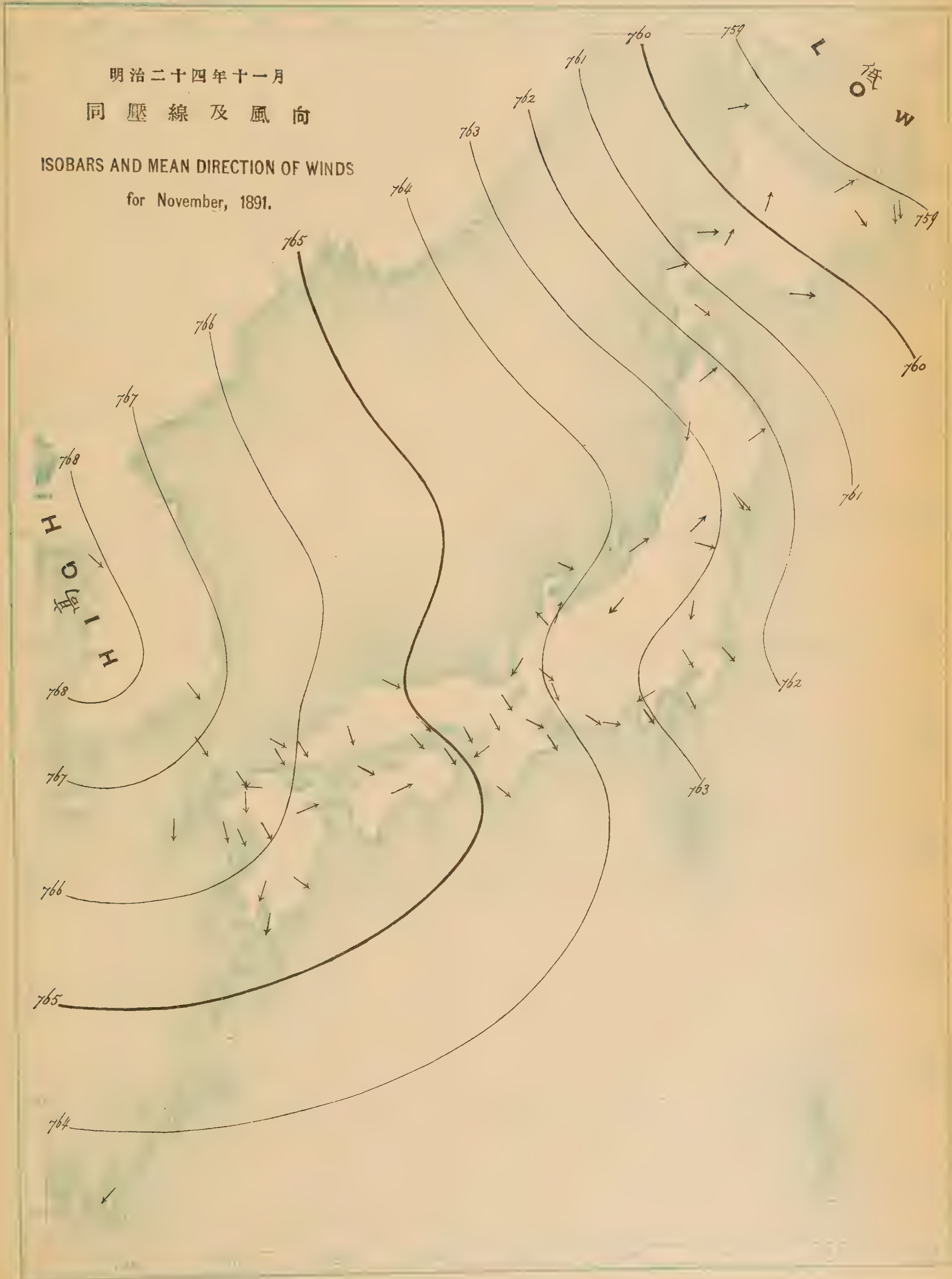
for August, 1891.

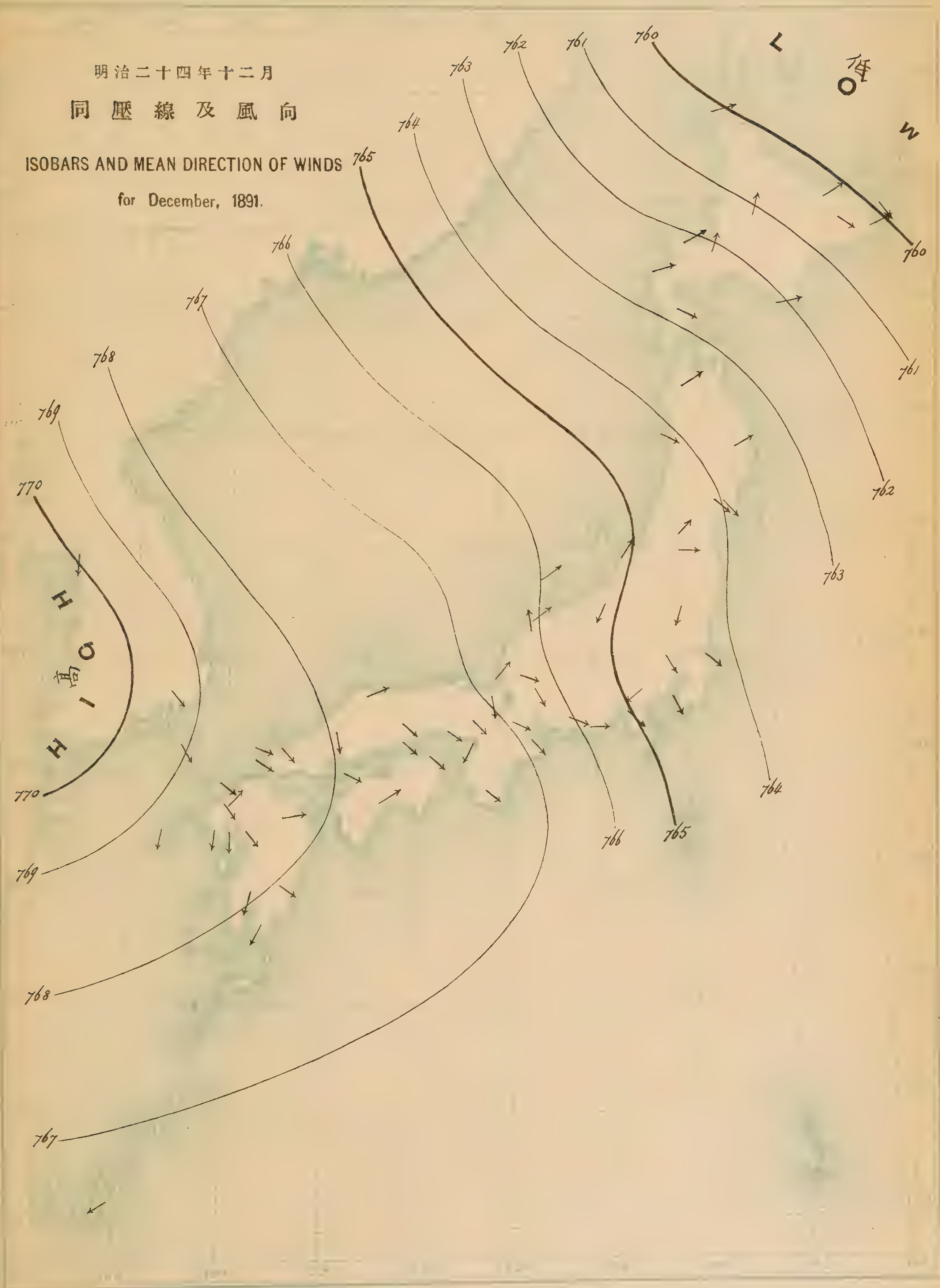

明治二十四年九月
同壓線及風向
ISOBARS AND MEAN DIRECTION OF WINDS
for September, 1891.
HIGH 高
HIGH 高
H
低
LOW
761
760
759
758
757
756

明治二十四年十月
同壓線及風向

ISOBARS AND MEAN DIRECTION OF WINDS
for October, 1891.



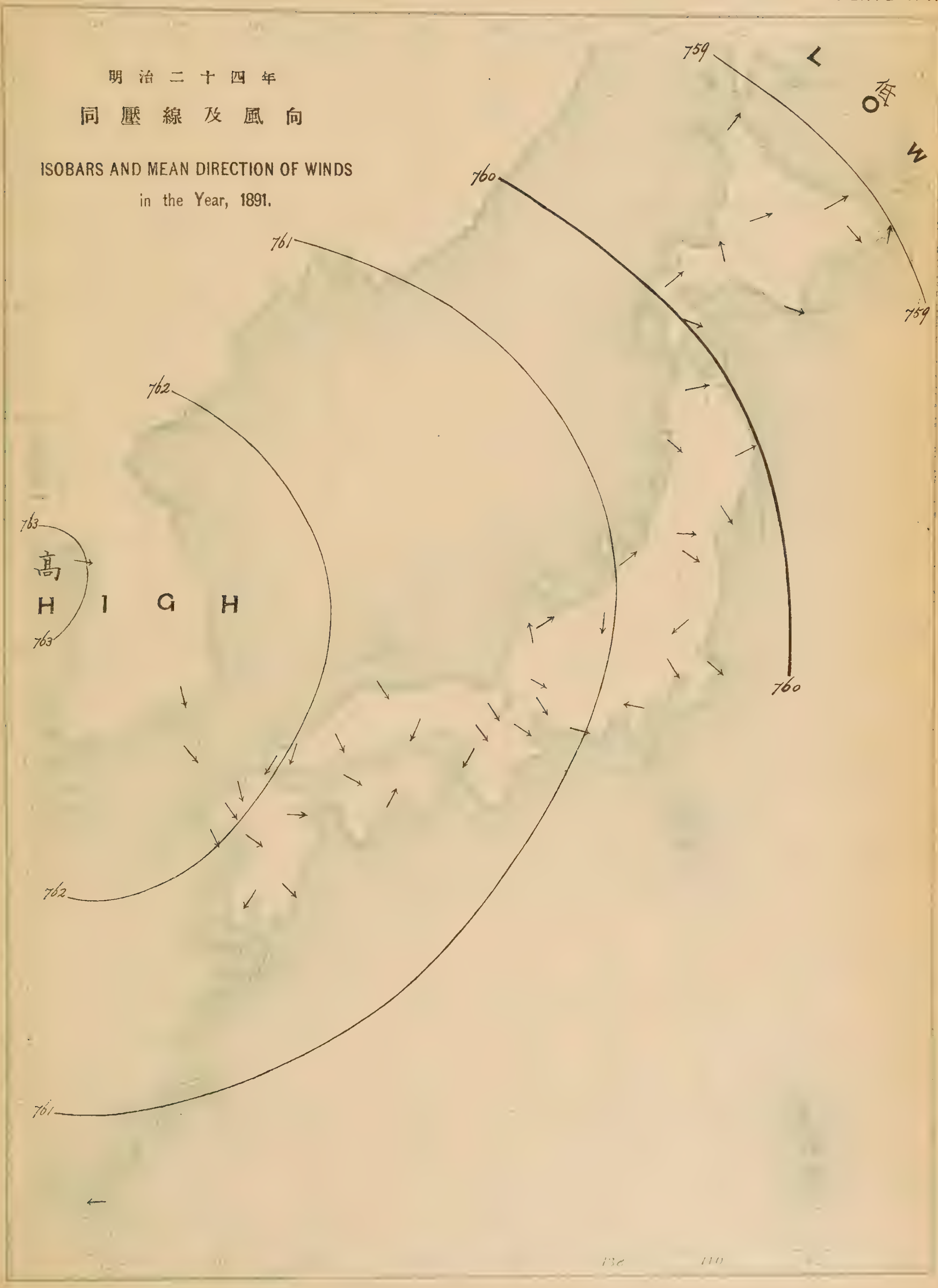

明治二十四年十一月
同壓線及風向
ISOBARS AND MEAN DIRECTION OF WINDS
for November, 1891.
LOW 低
HIGH 高
759
760
761
762
763
764
765
766
767
768



明治二十四年十二月
同壓線及風向
ISOBARS AND MEAN DIRECTION OF WINDS
for December, 1891.

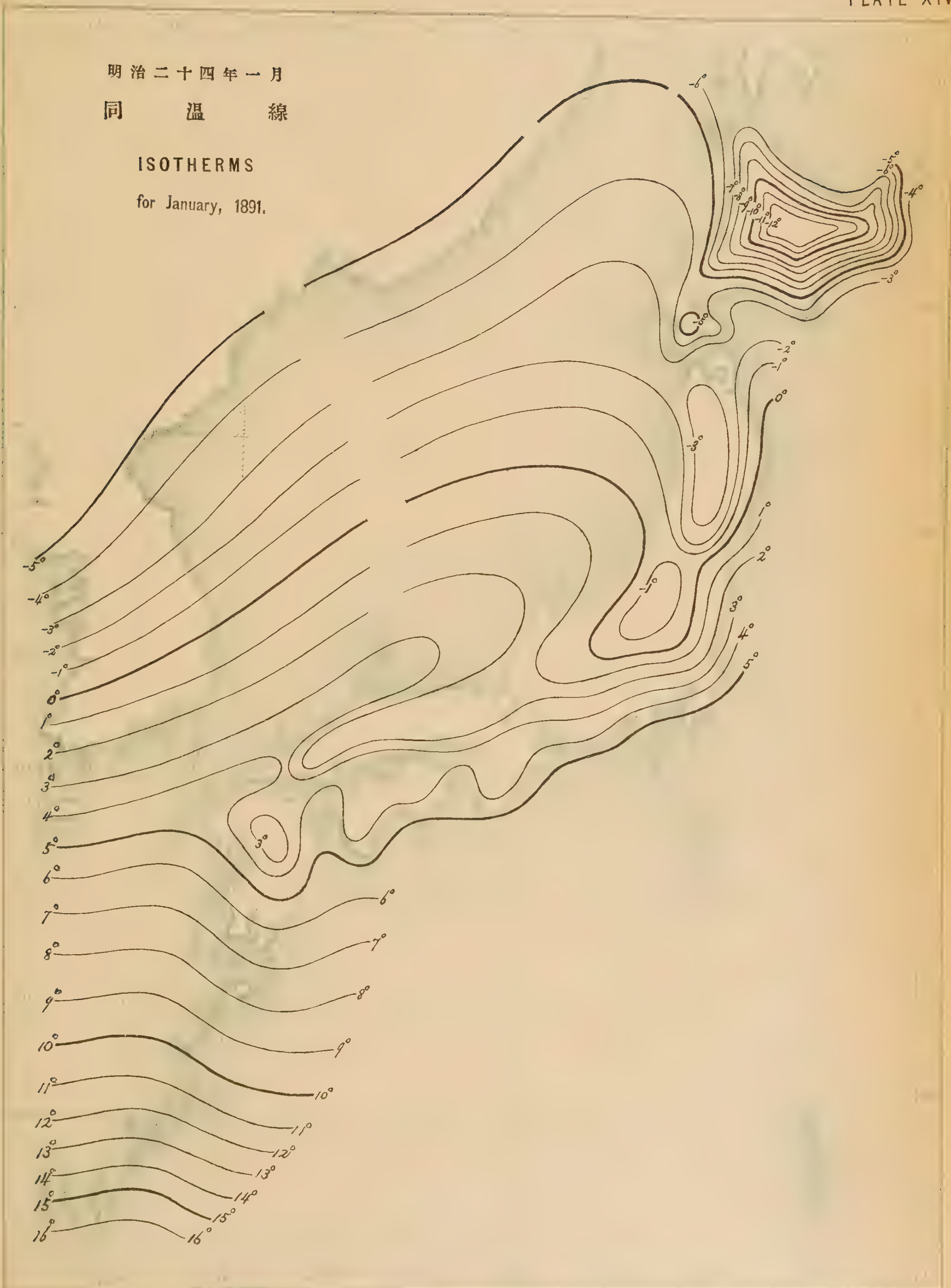
明治二十四年
同壓線及風向

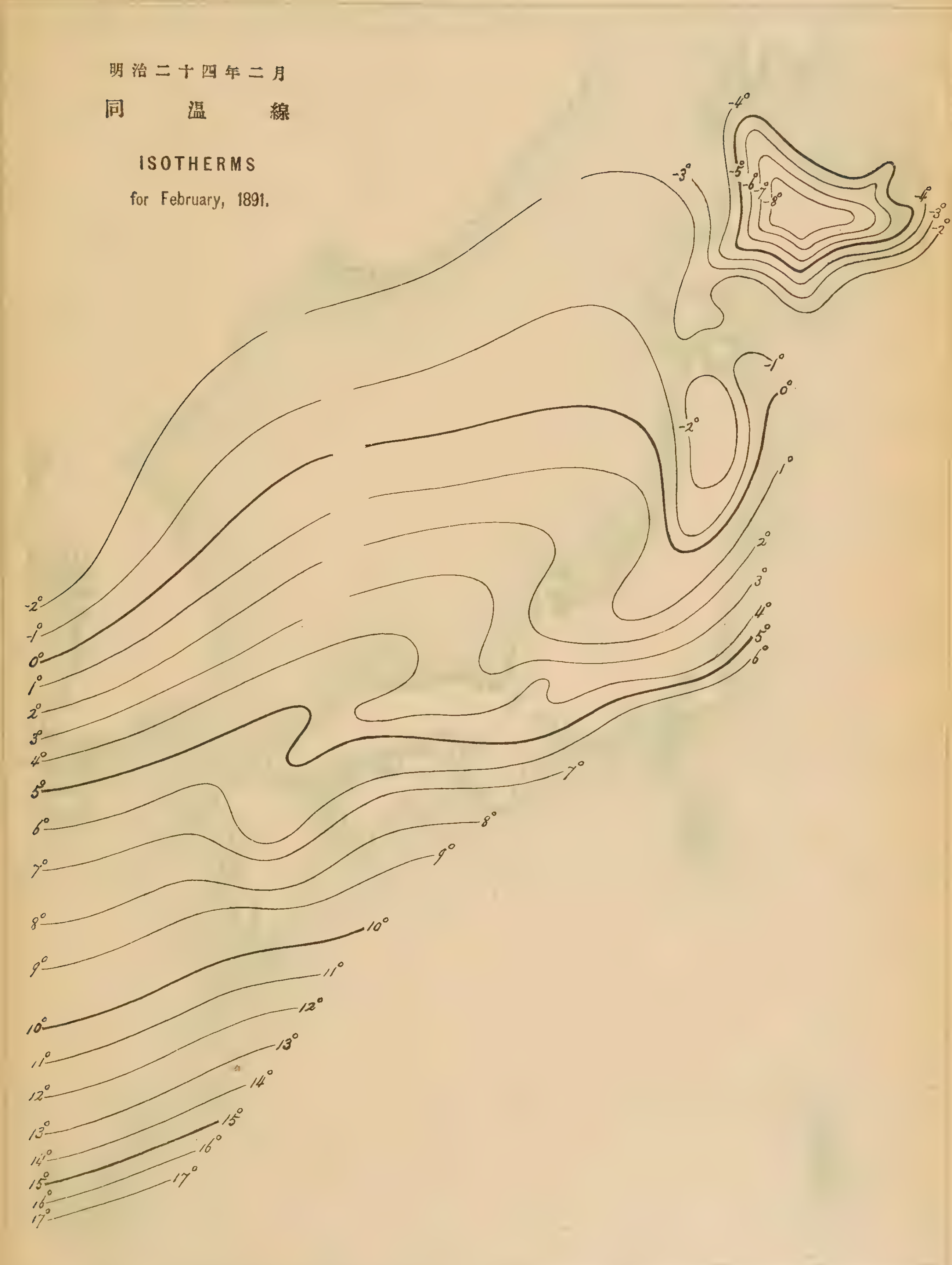
ISOBARS AND MEAN DIRECTION OF WINDS in the Year, 1891.



第十四圖

PLATE XIV




明治二十四年二月
同温線
ISOTHERMS
for February, 1891.

明治二十四年三月

同温線

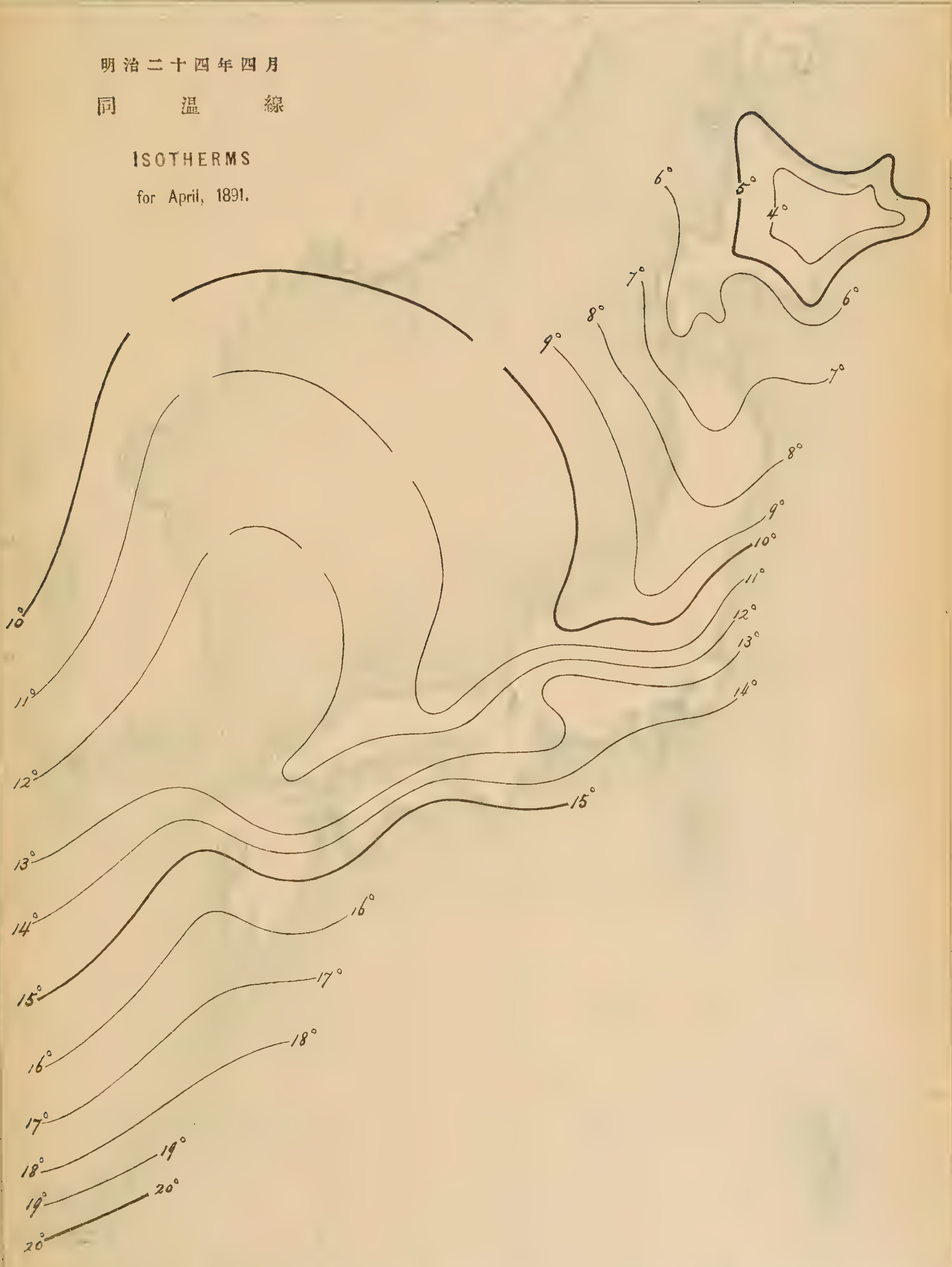
ISOTHERMS

for March, 1891.



明治二十四年四月
同　温　線

ISOTHERMS
for April, 1891.





明治二十四年五月

同温線

ISOTHERMS

for May, 1891.

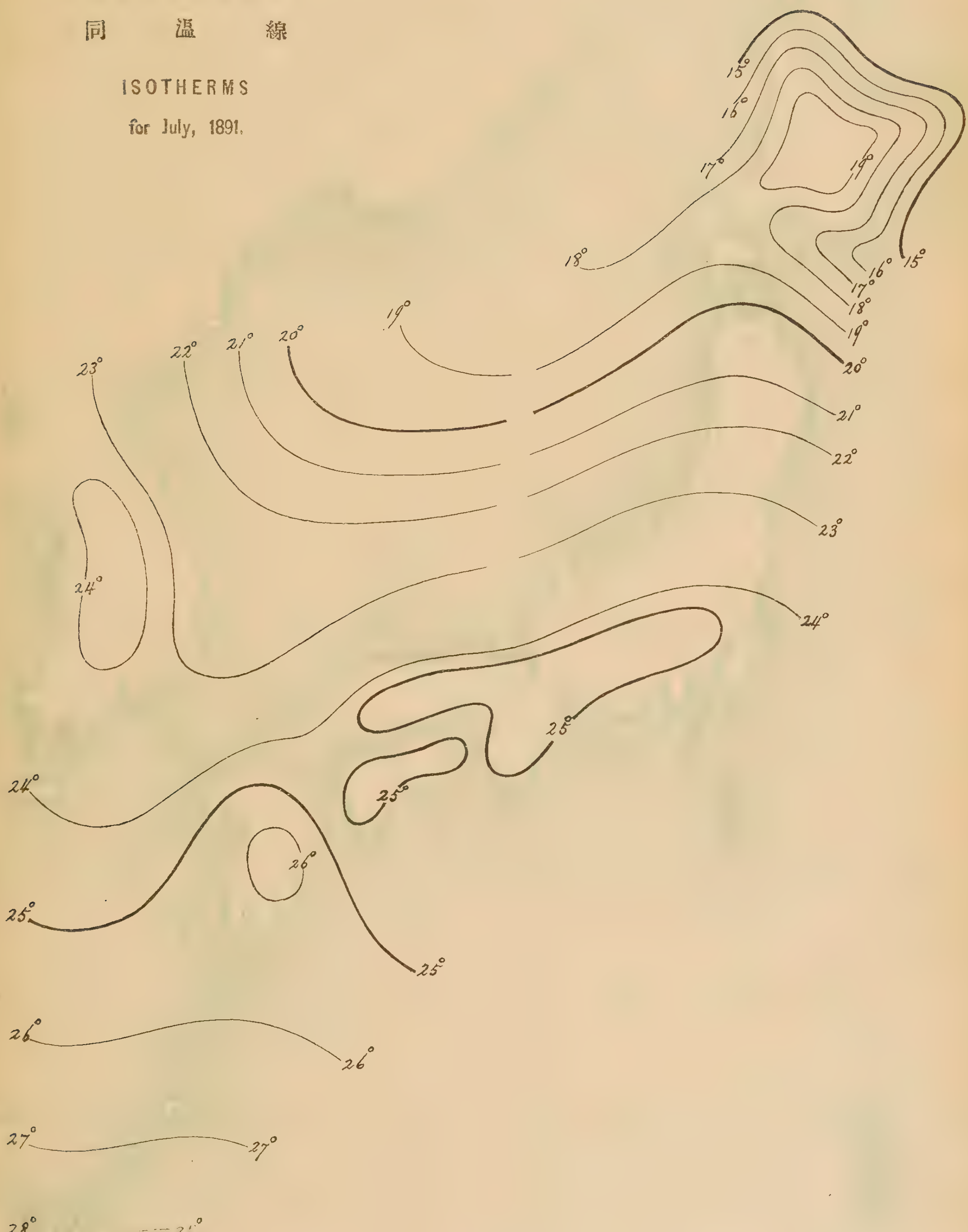
明治二十四年六月
同温線

ISOTHERMS
for June, 1891.

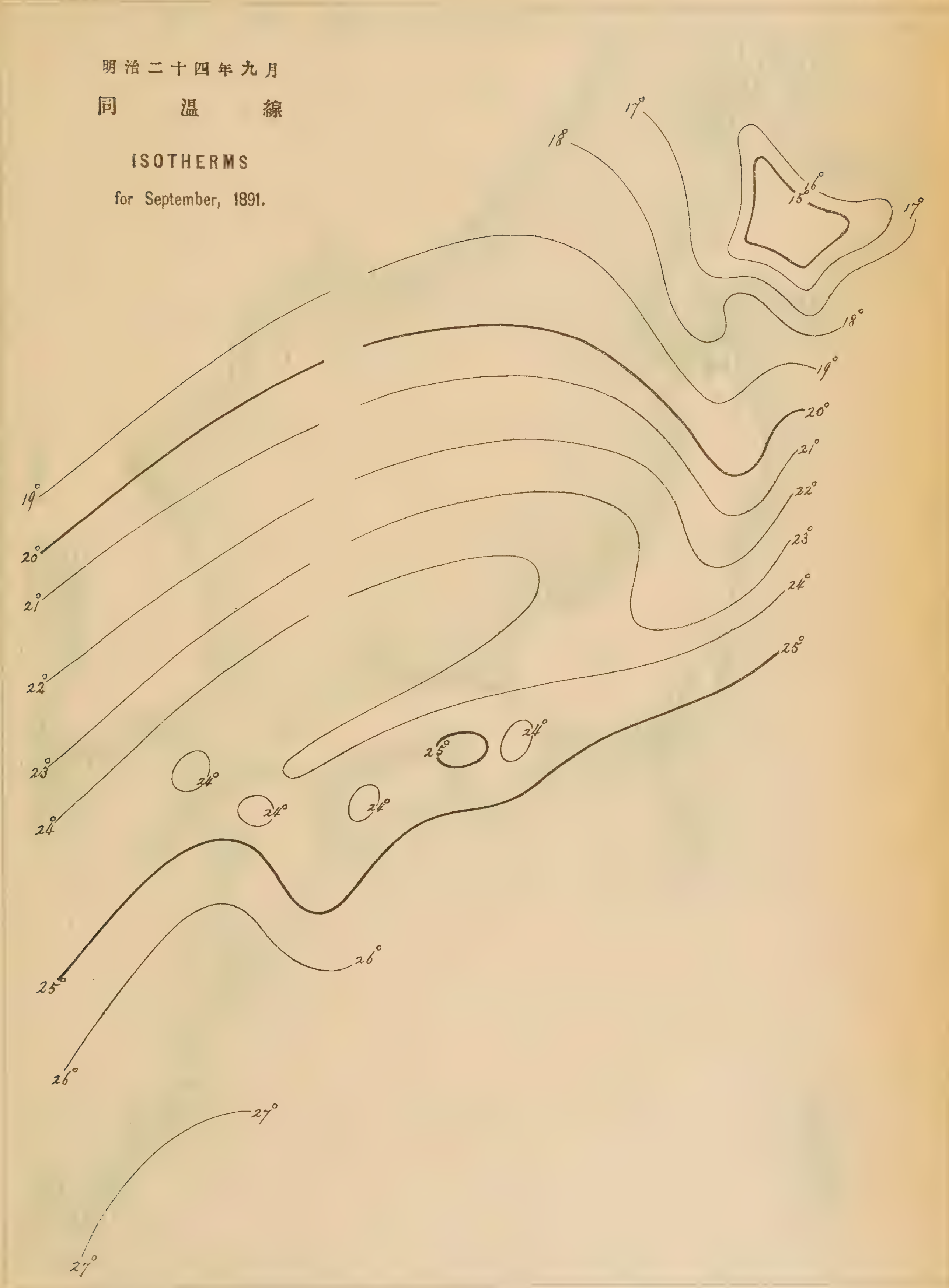


明治二十四年七月
同温線

ISOTHERMS
for July, 1891.




明治二十四年八月
同 温 線
ISOTHERMS
for August, 1891.
17°
18°
19°
17°
18°
20°
19°
21°
20°
21°
22°
23°
22°
23°
24°
24°
25°
26°
26°
25°
26°
26°
27°
26°
27°

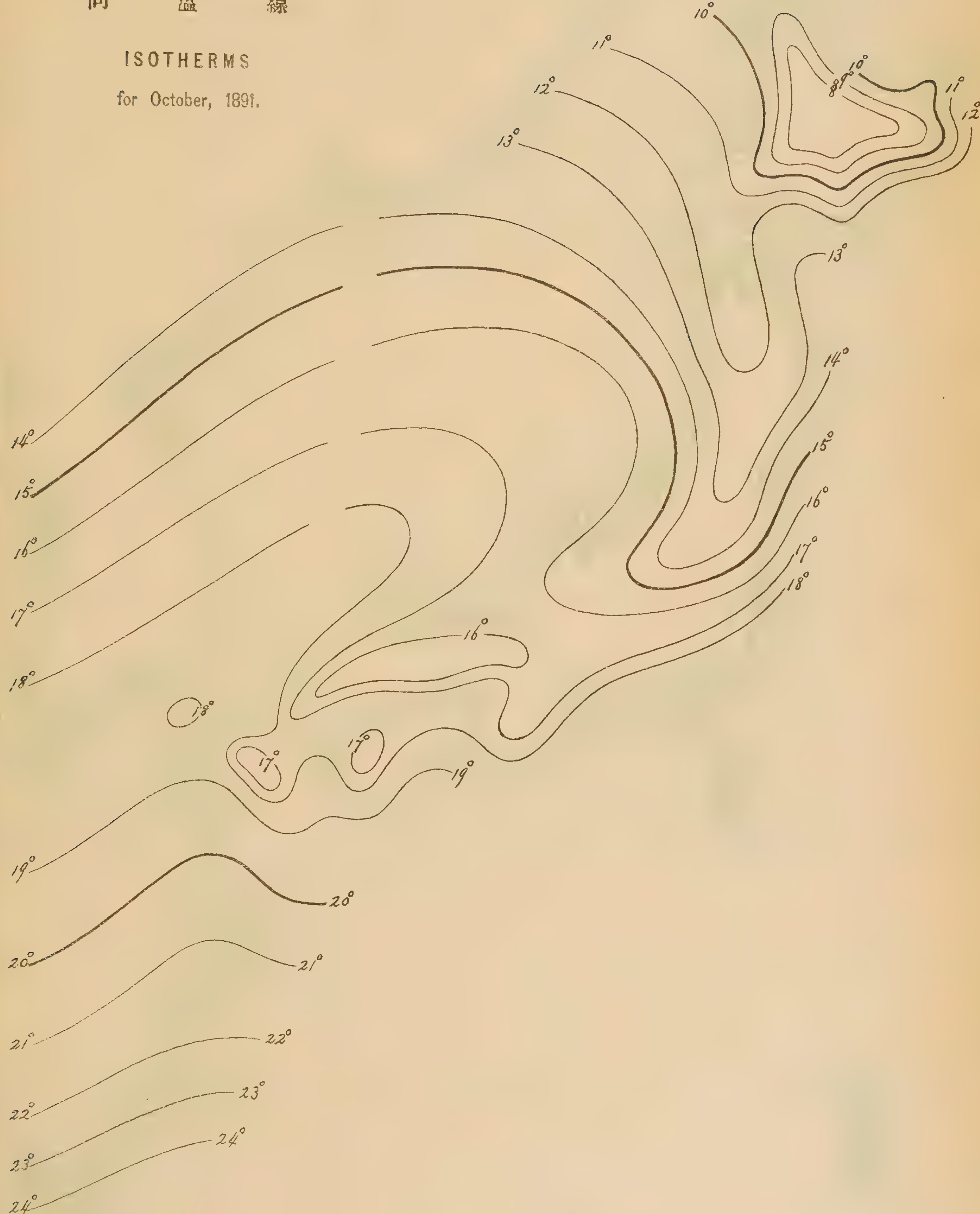

明治二十四年九月
同温線
ISOTHERMS
for September, 1891.
17°
18°
16°
15°
17°
18°
19°
20°
21°
22°
23°
24°
25°
19°
20°
21°
22°
23°
24°
24°
24°
24°
25°
24°
25°
26°
26°
27°
27°

明治二十四年十月

同温線

ISOTHERMS

for October, 1891.



第二十四圖

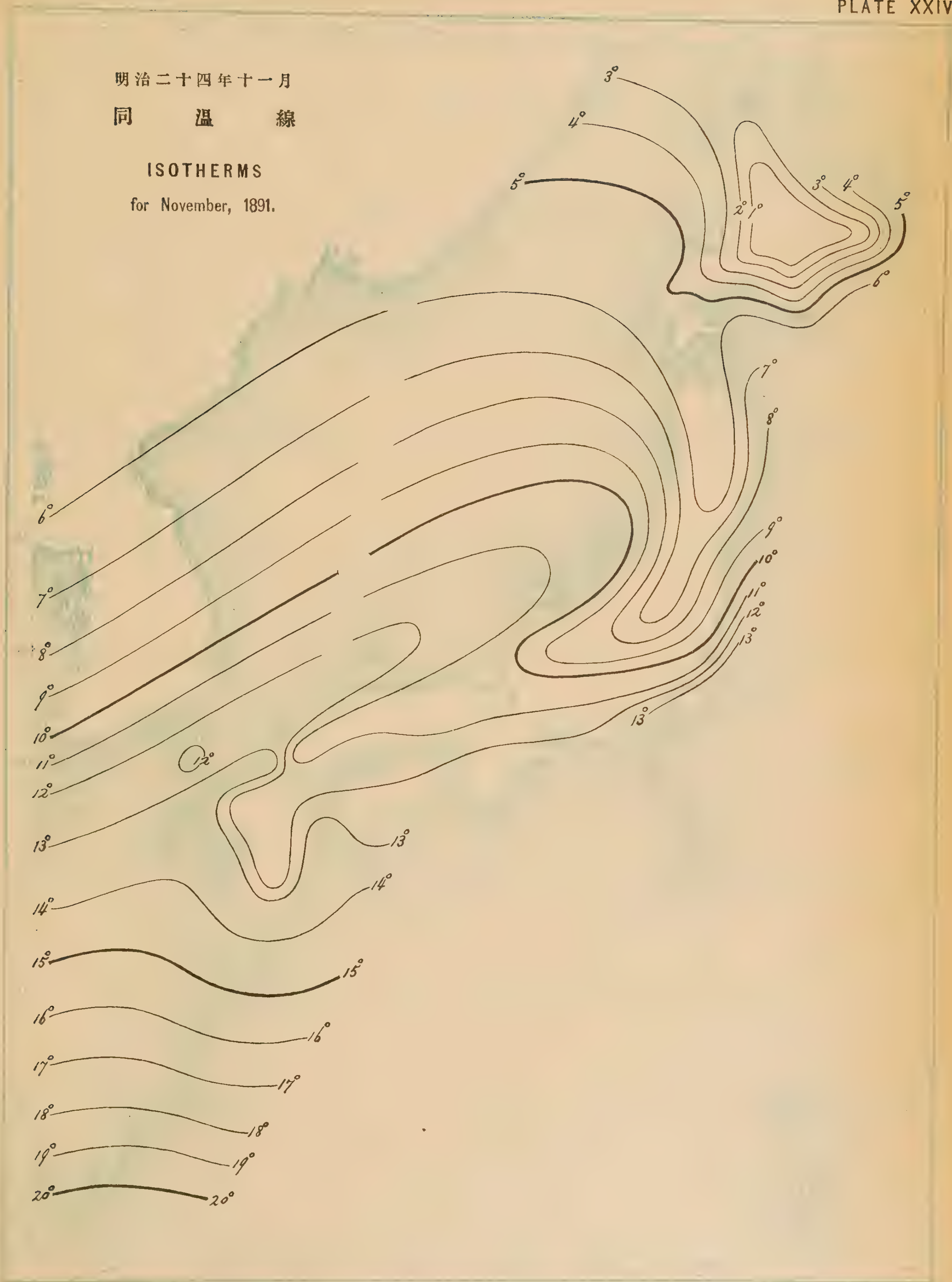
PLATE XXIV

明治二十四年十一月

同　温　線

ISOTHERMS

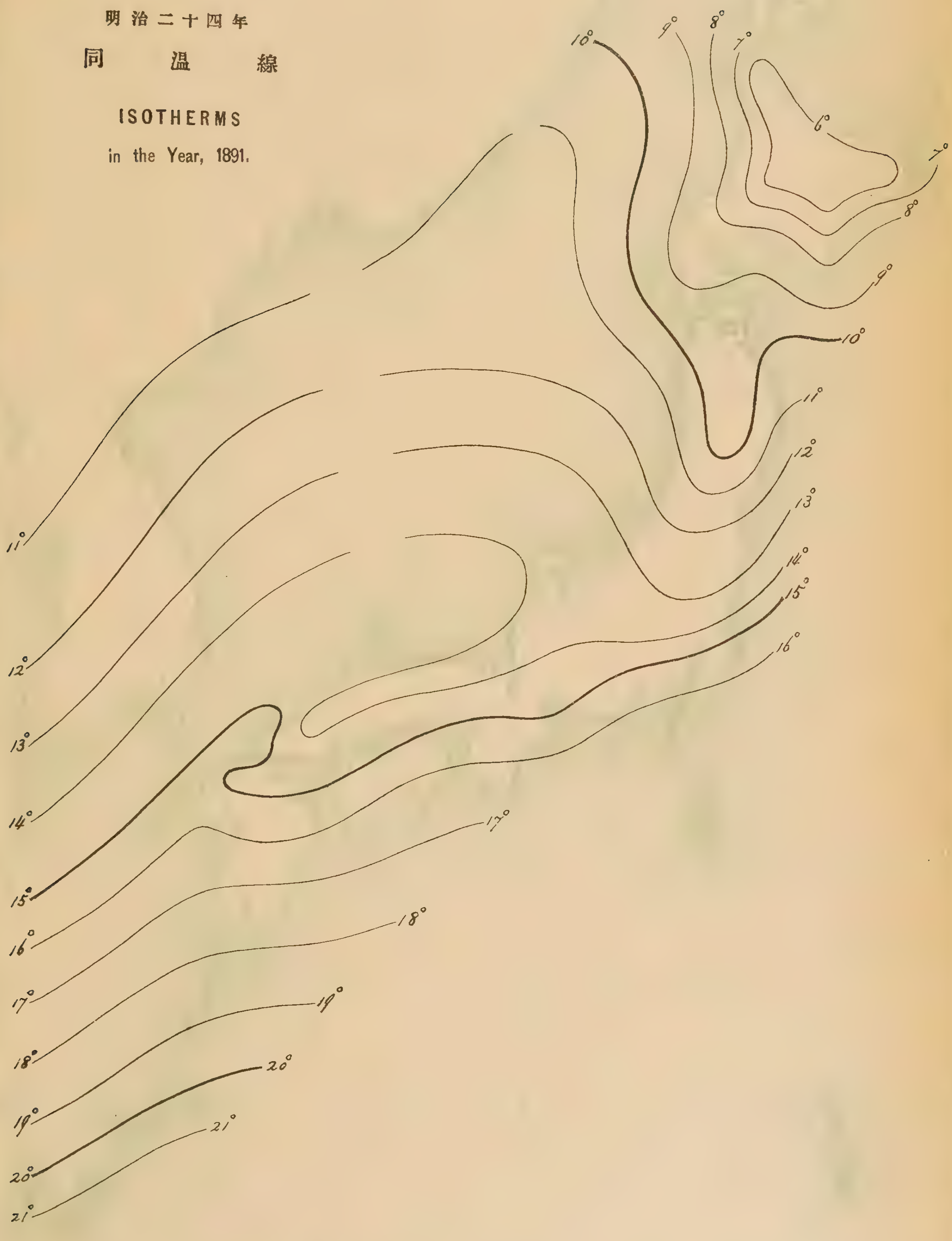
for November, 1891.




明治二十四年十二月
同温線
ISOTHERMS
for December, 1891.
0°
1°
2°
3°
4°
5°
6°
7°
8°
9°
10°
11°
12°
13°
14°
15°
16°
17°
18°
-2°
-1°
-3
-4
-5°
-2°
-1°
0°
1°
2°
3°
4°
5°
6°
7°
8°
5°
7°
9°
10°
11°
12°
13°
14°
15°
16°
17°
18°

明治二十四年
同　温　線

ISOTHERMS
in the Year, 1891.

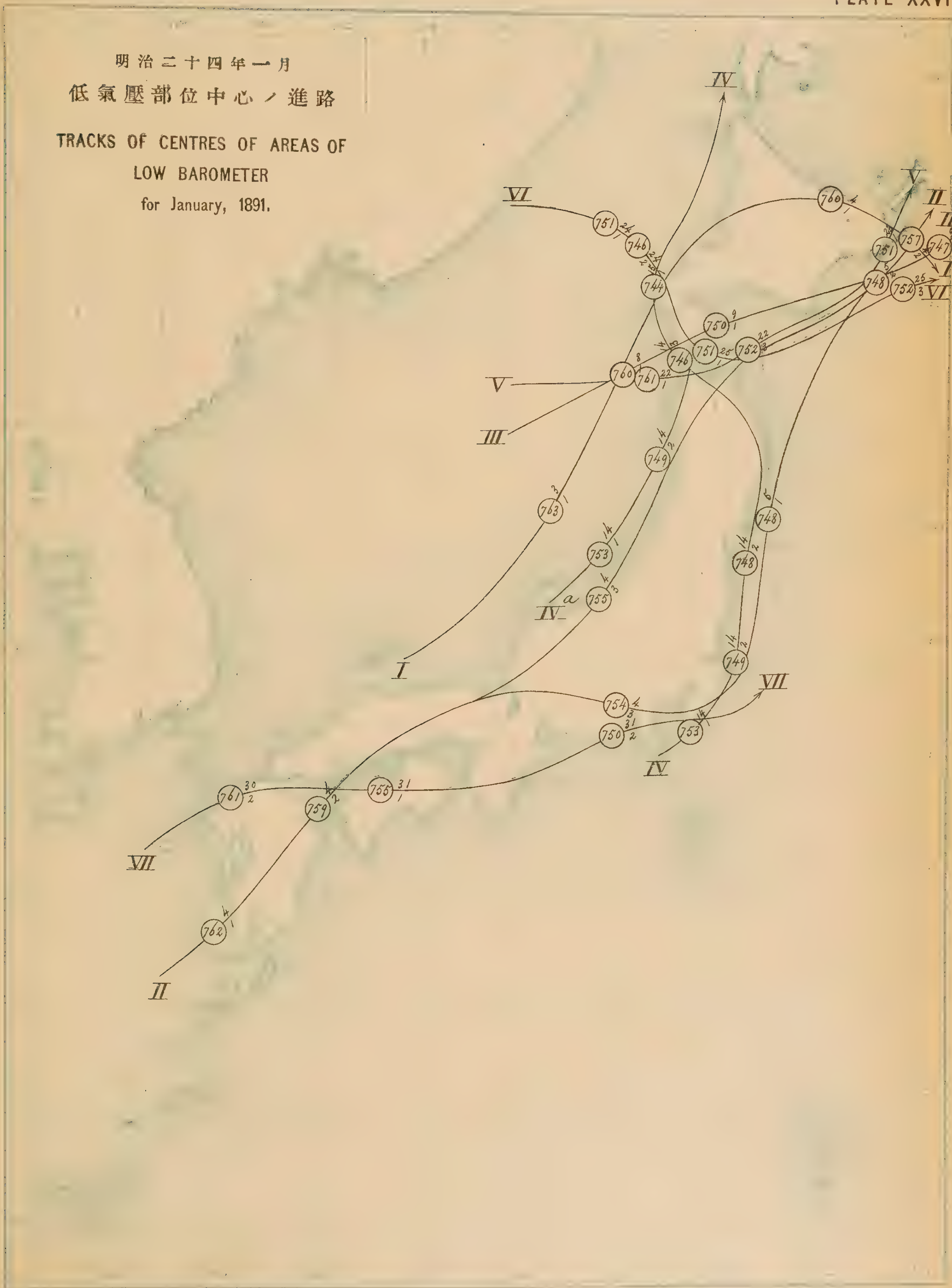


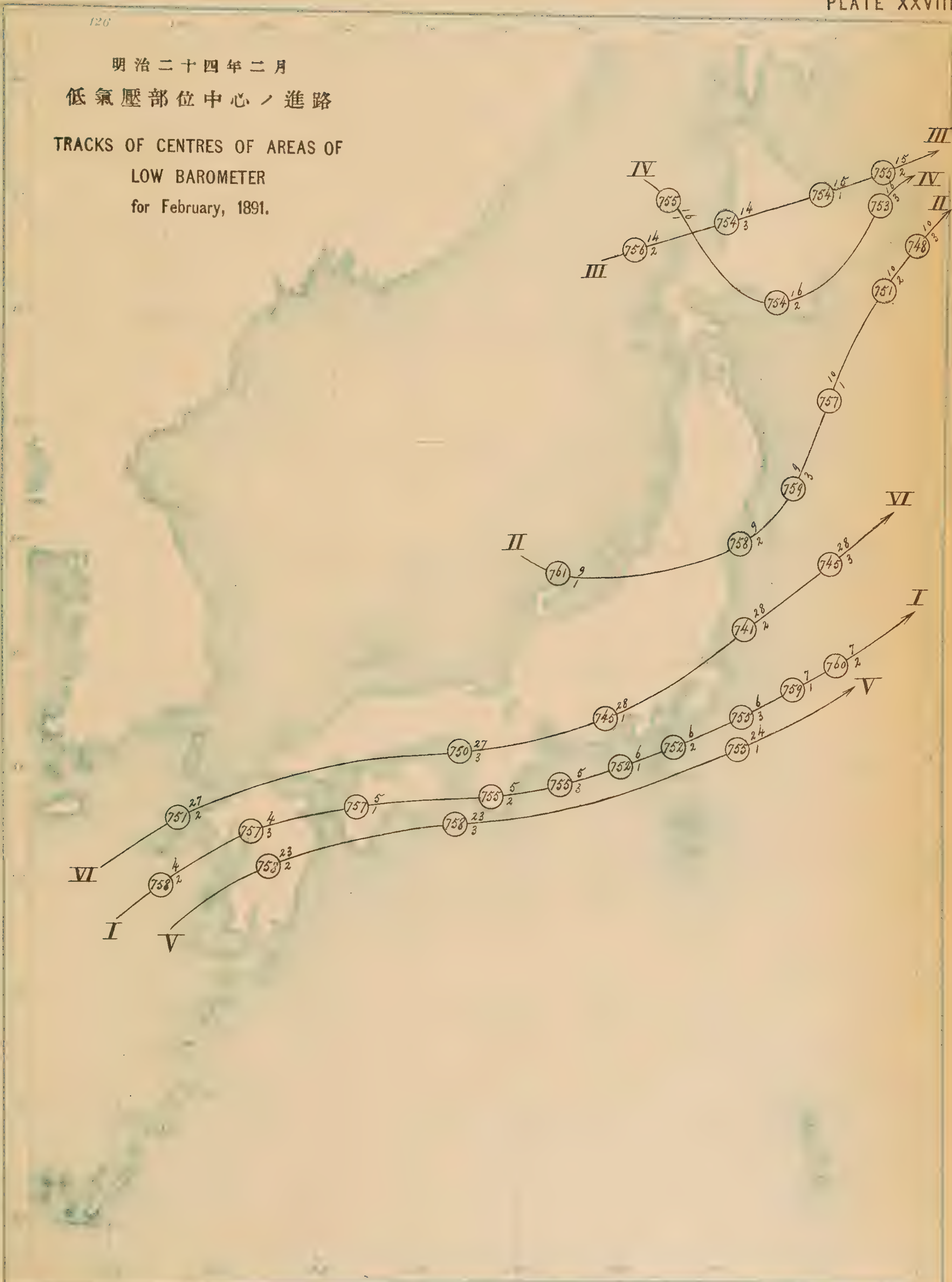
第二十七圖

PLATE XXVII

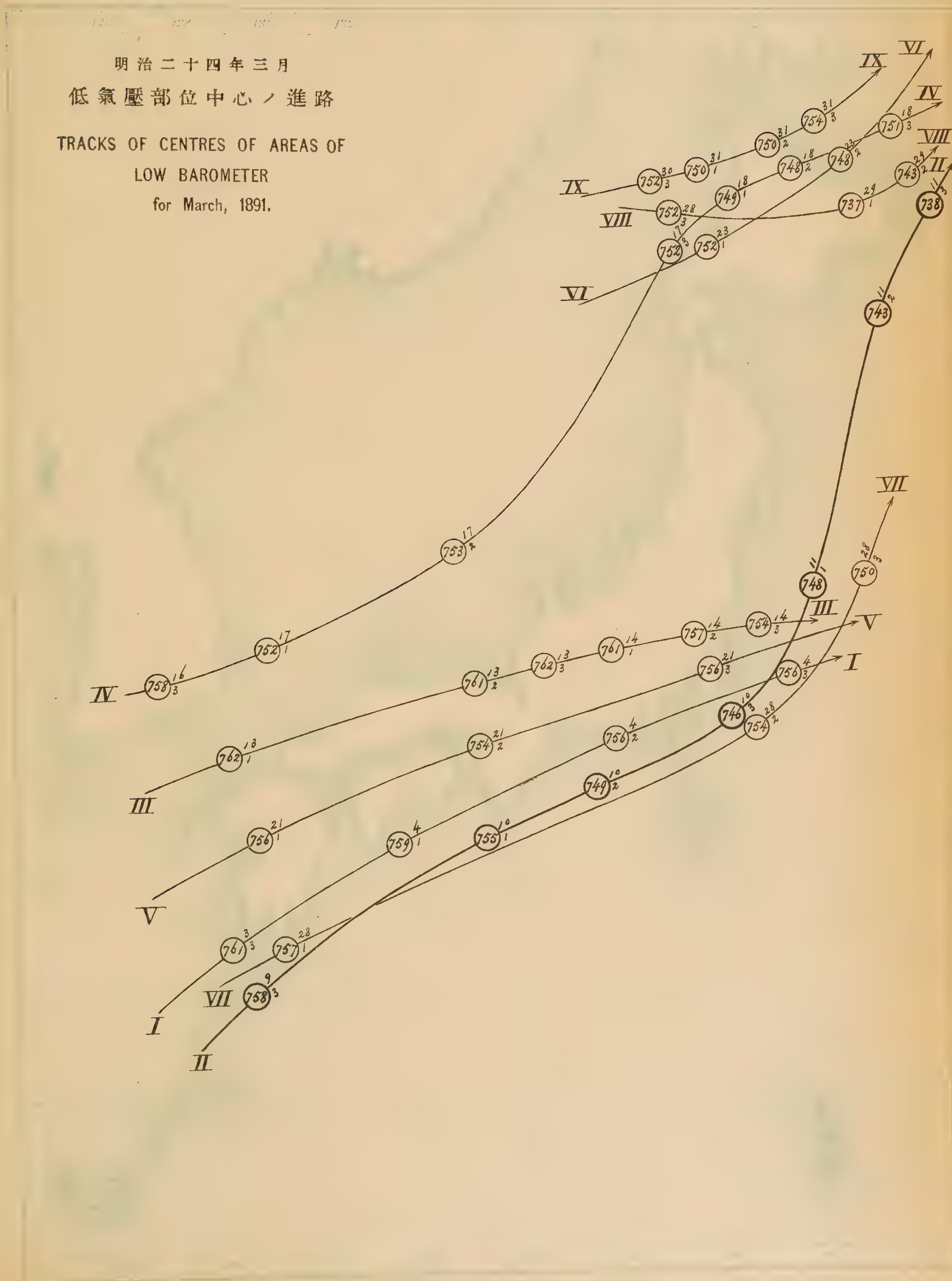
明治二十四年一月
低氣壓部位中心ノ進路

TRACKS OF CENTRES OF AREAS OF LOW BAROMETER for January, 1891.




明治二十四年二月
低氣壓部位中心ノ進路
TRACKS OF CENTRES OF AREAS OF
LOW BAROMETER
for February, 1891.
I
II
III
IV
V
VI

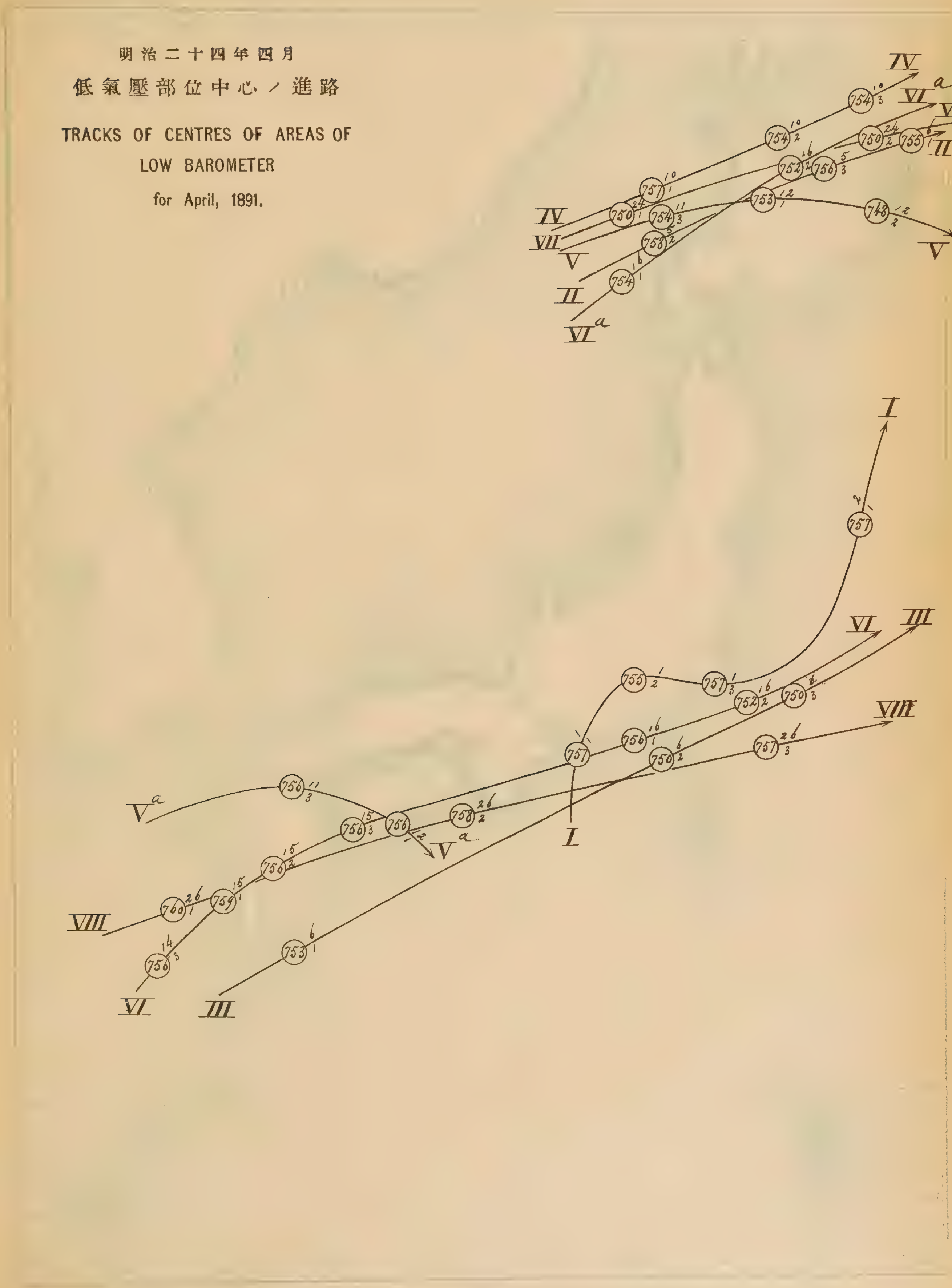
第二十九圖 PLATE XXIX



明治二十四年四月

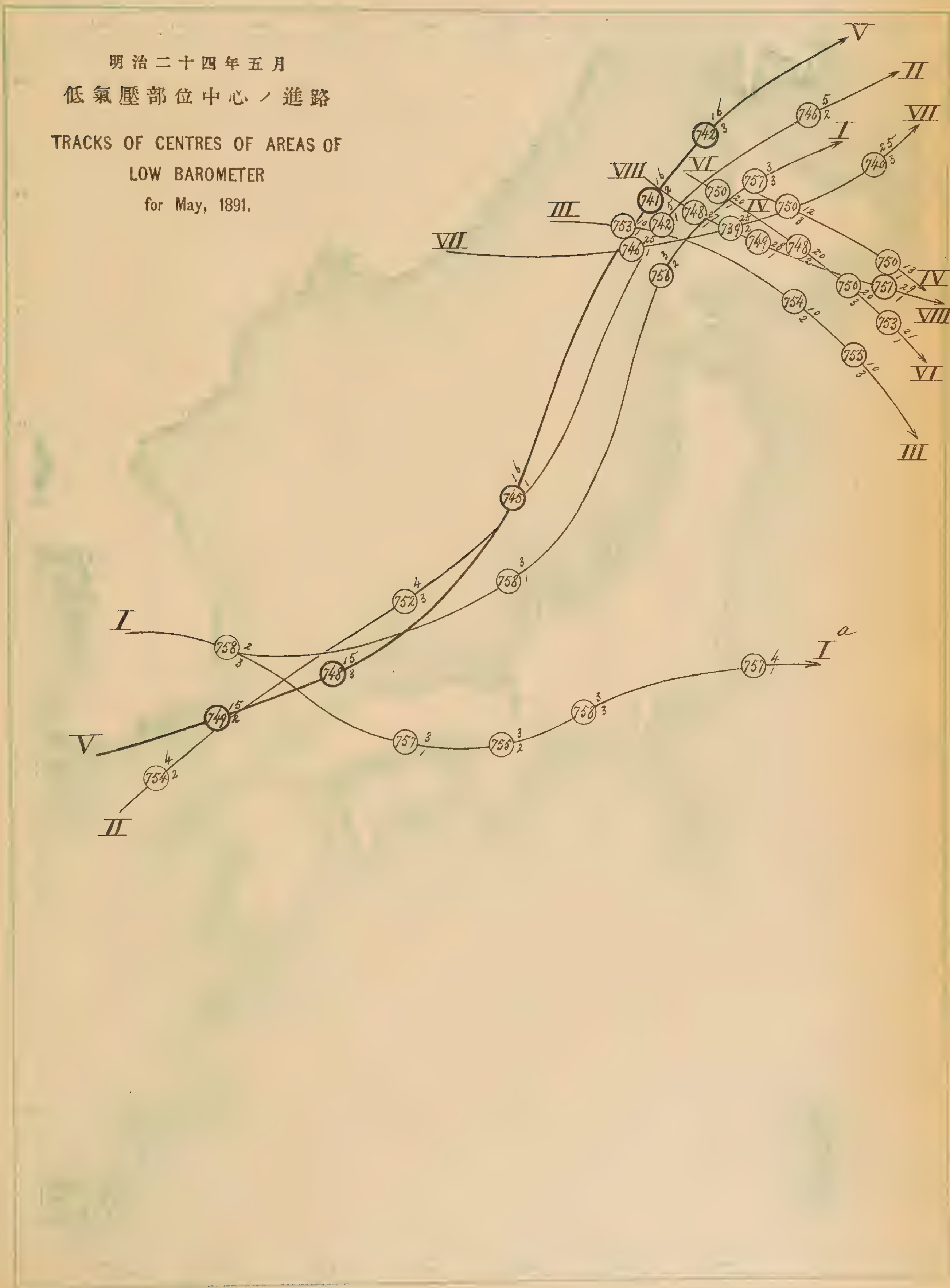
低氣壓部位中心ノ進路

TRACKS OF CENTRES OF AREAS OF LOW BAROMETER for April, 1891.



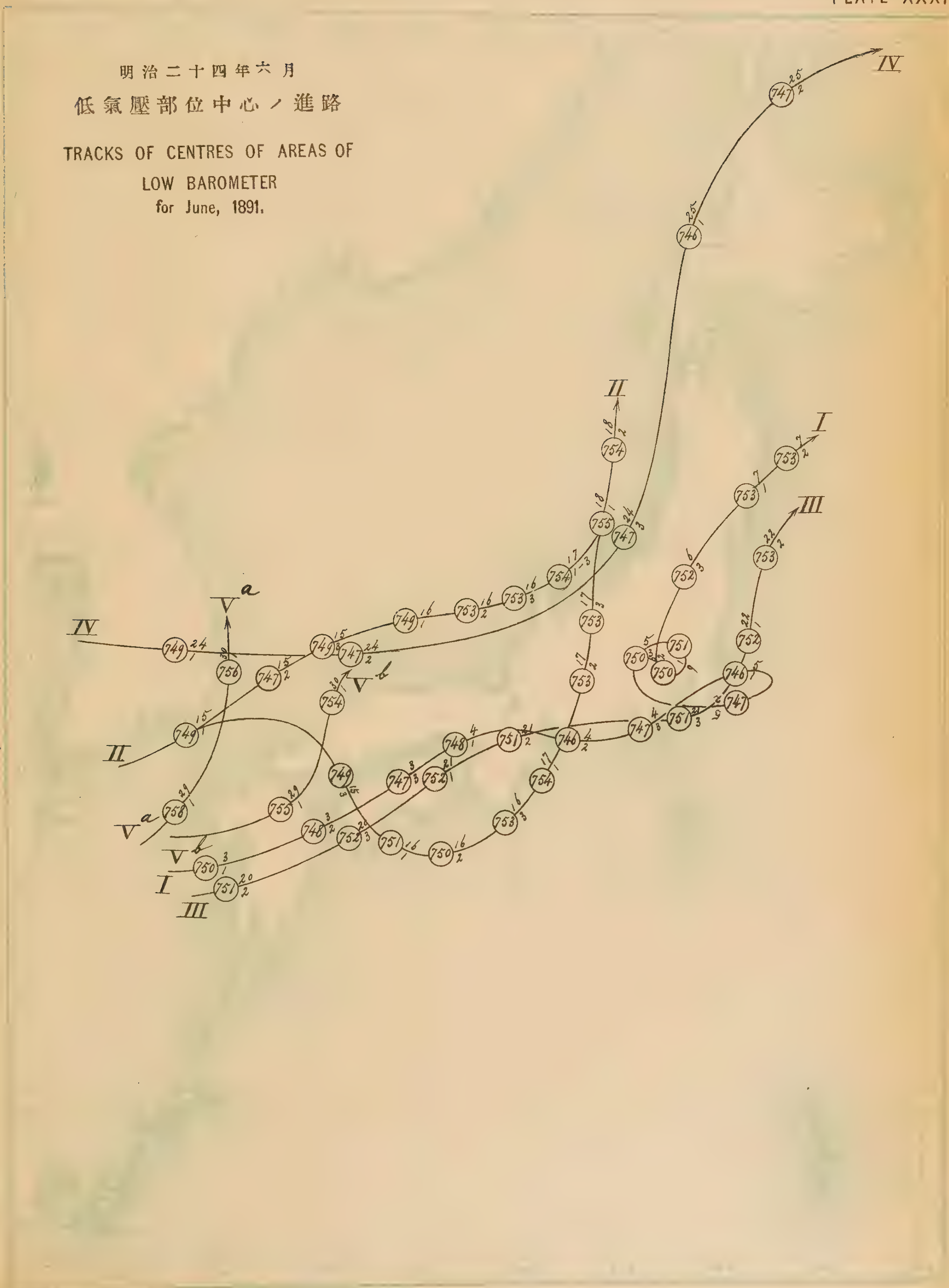
明治二十四年五月
低氣壓部位中心ノ進路

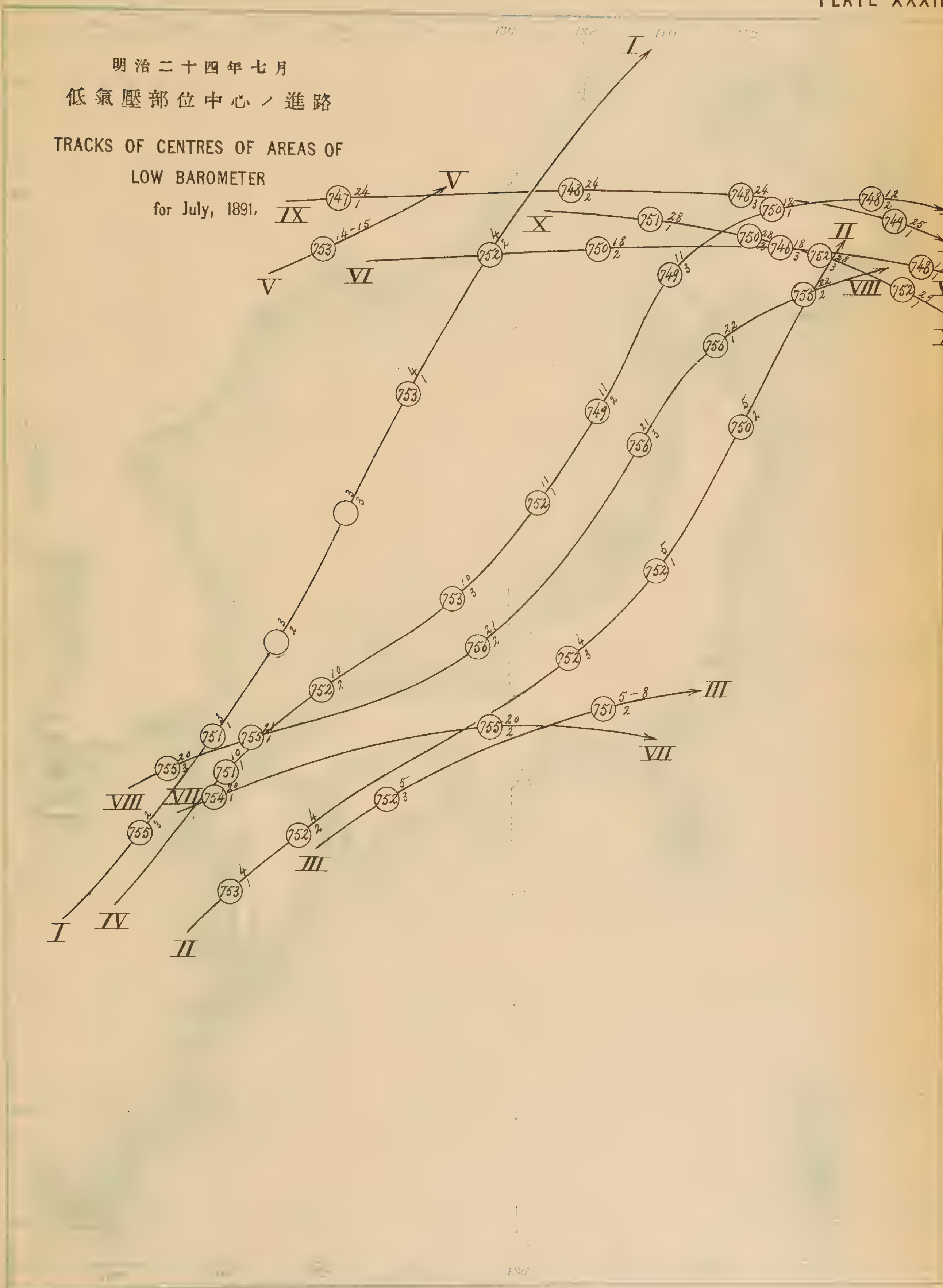
TRACKS OF CENTRES OF AREAS OF LOW BAROMETER for May, 1891.



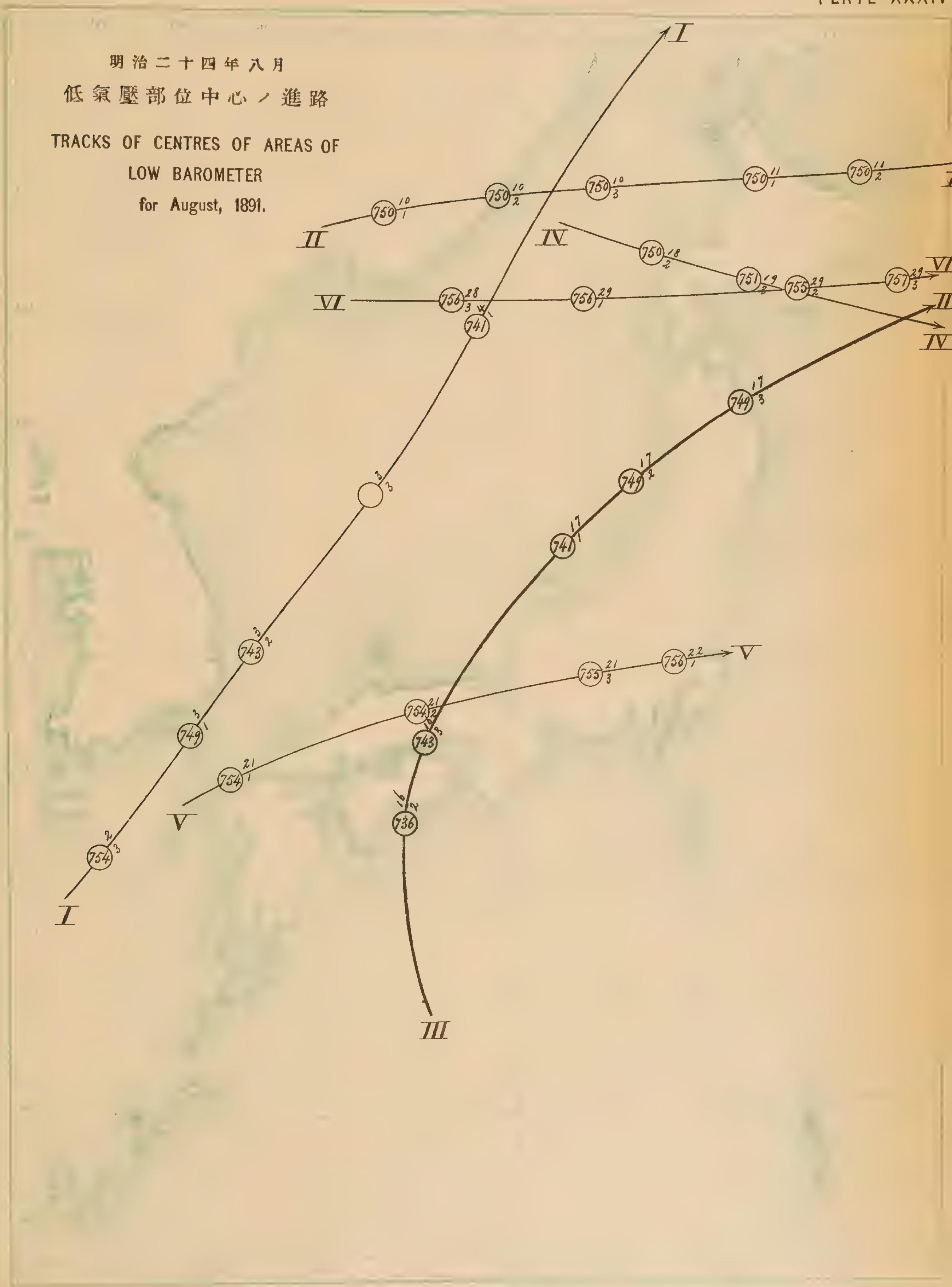
明治二十四年六月
低氣壓部位中心ノ進路

TRACKS OF CENTRES OF AREAS OF LOW BAROMETER for June, 1891.



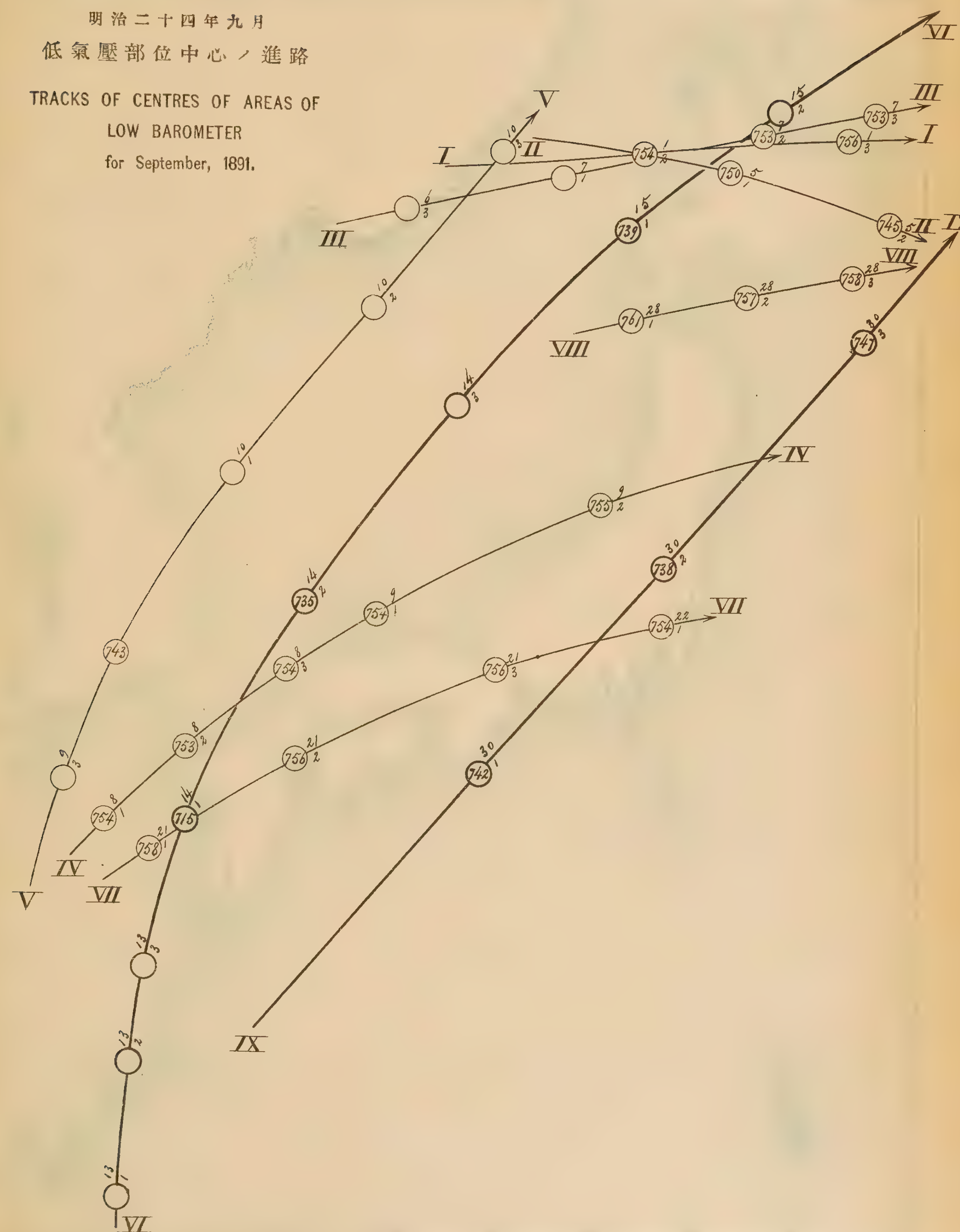

明治二十四年七月
低氣壓部位中心ノ進路
TRACKS OF CENTRES OF AREAS OF
LOW BAROMETER
for July, 1891.

第三十四圖 PLATE XXXIV



明治二十四年九月
低氣壓部位中心ノ進路

TRACKS OF CENTRES OF AREAS OF LOW BAROMETER for September, 1891.



明治二十四年十月
低氣壓部位中心ノ進路

TRACKS OF CENTRES OF AREAS OF LOW BAROMETER for October, 1891.

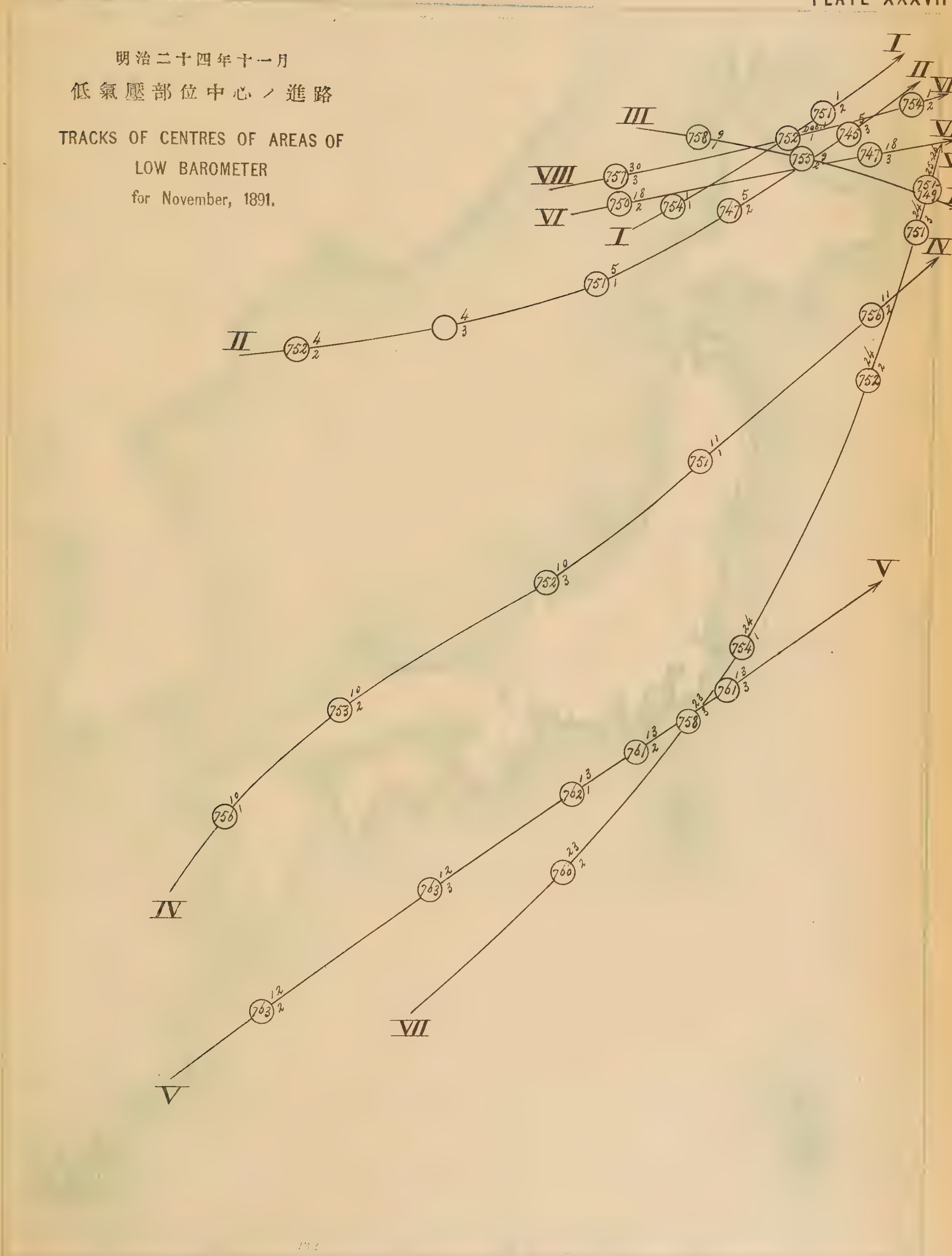


第三十七圖

PLATE XXXVII

明治二十四年十一月
低氣壓部位中心ノ進路

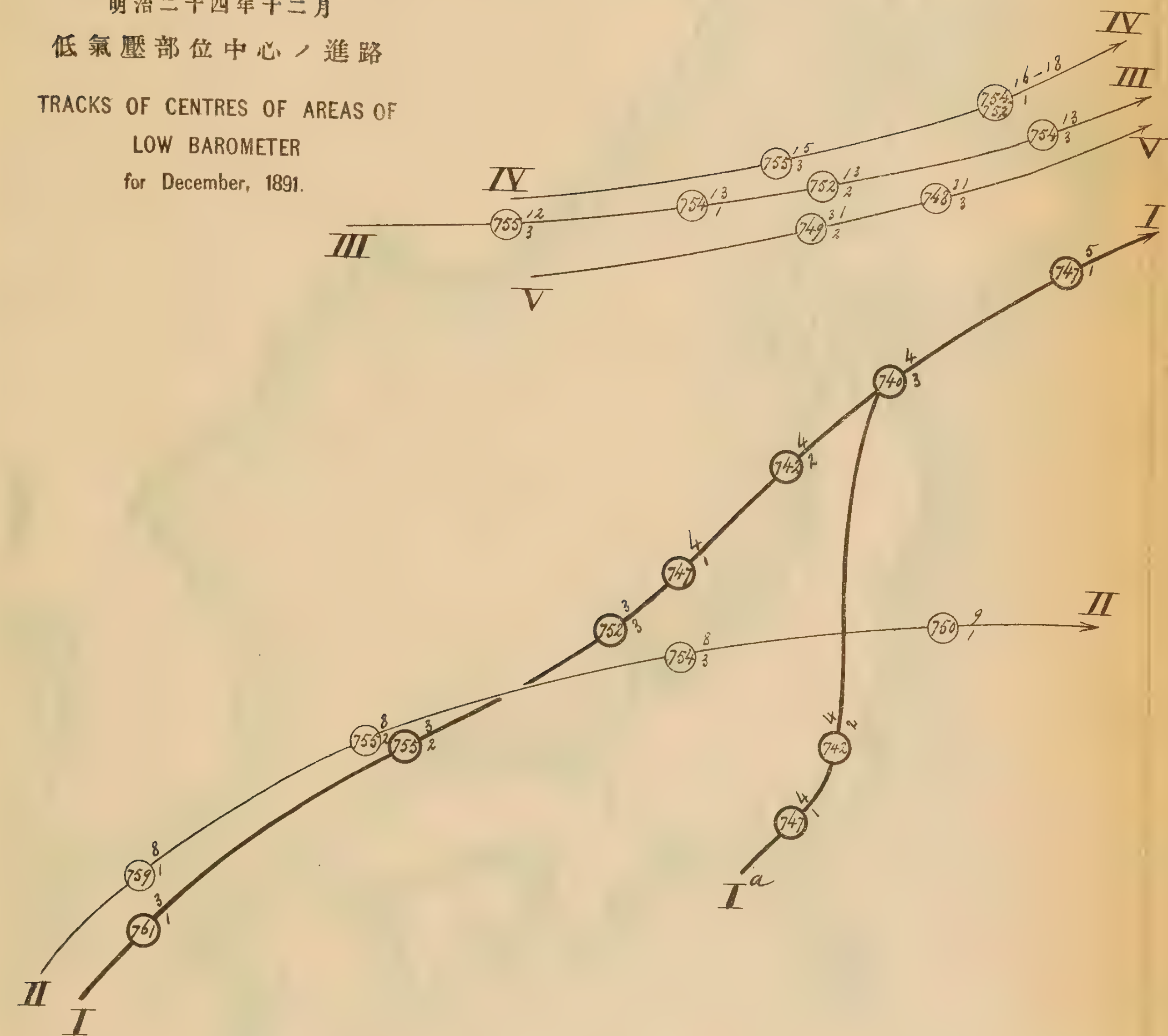
TRACKS OF CENTRES OF AREAS OF
LOW BAROMETER
for November, 1891.



第三十八圖 PLATE XXXVIII

明治二十四年十二月
低氣壓部位中心ノ進路

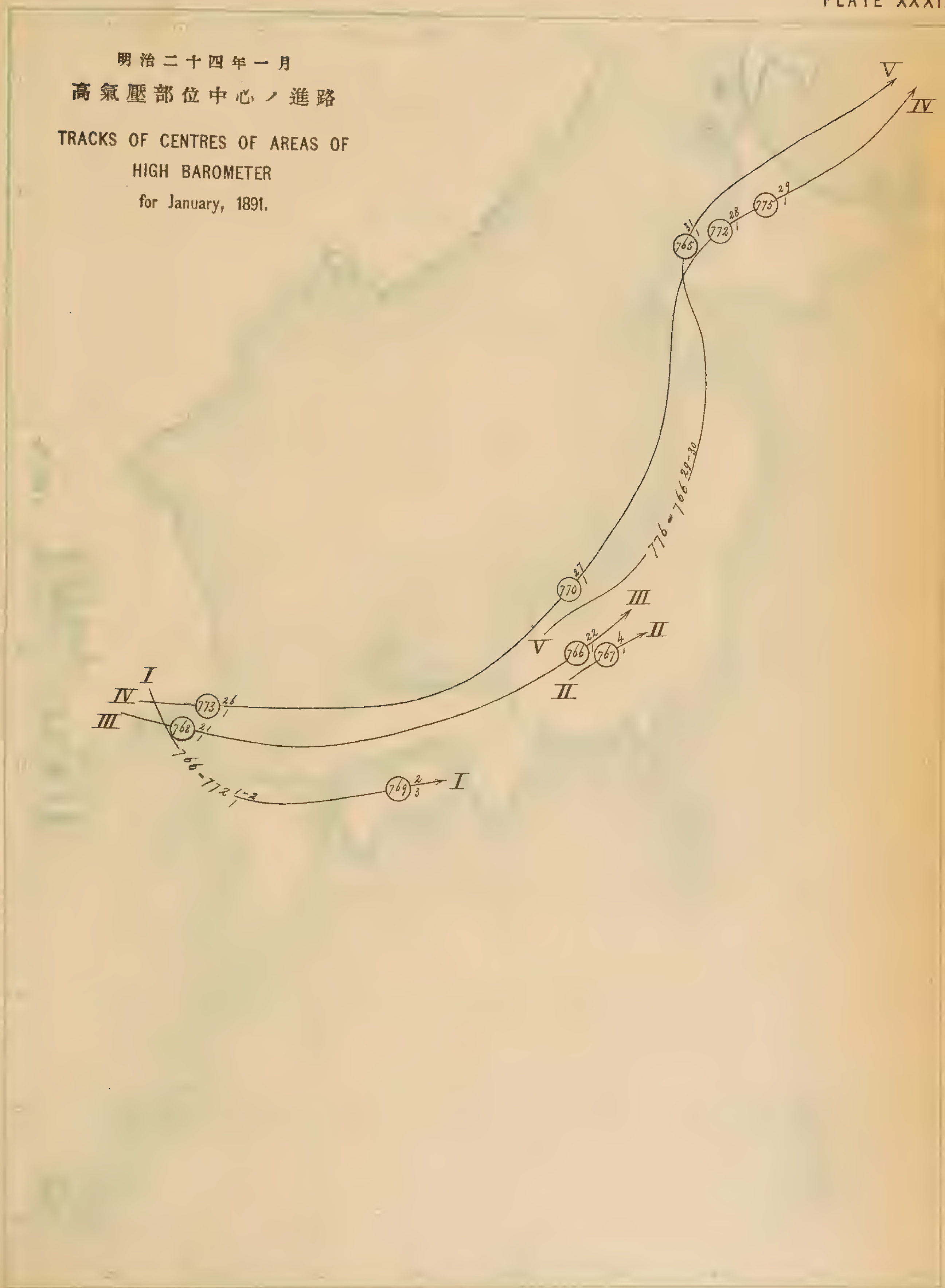
TRACKS OF CENTRES OF AREAS OF LOW BAROMETER for December, 1891.



明治二十四年一月

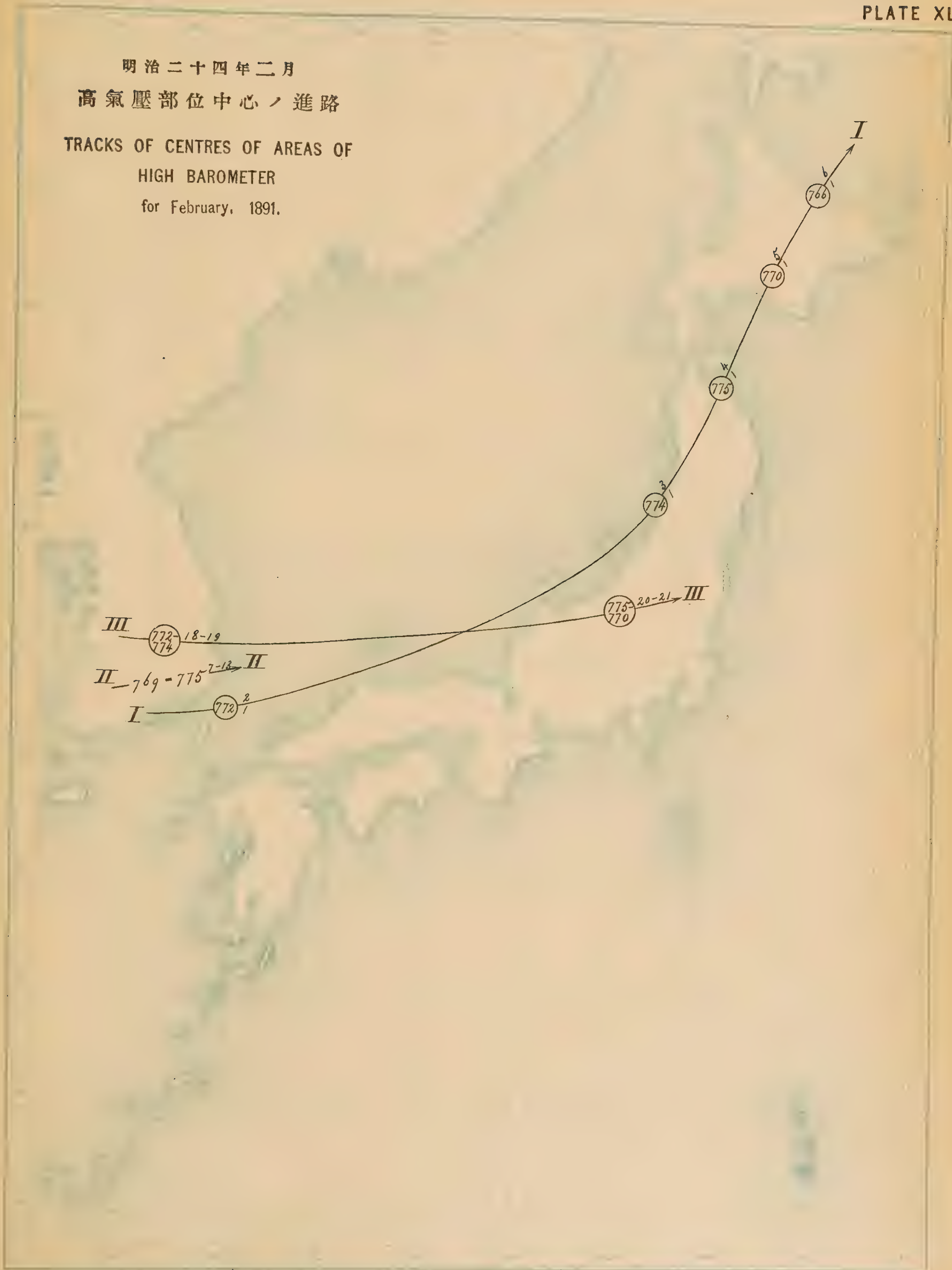
高氣壓部位中心ノ進路

TRACKS OF CENTRES OF AREAS OF HIGH BAROMETER for January, 1891.



第四十圖

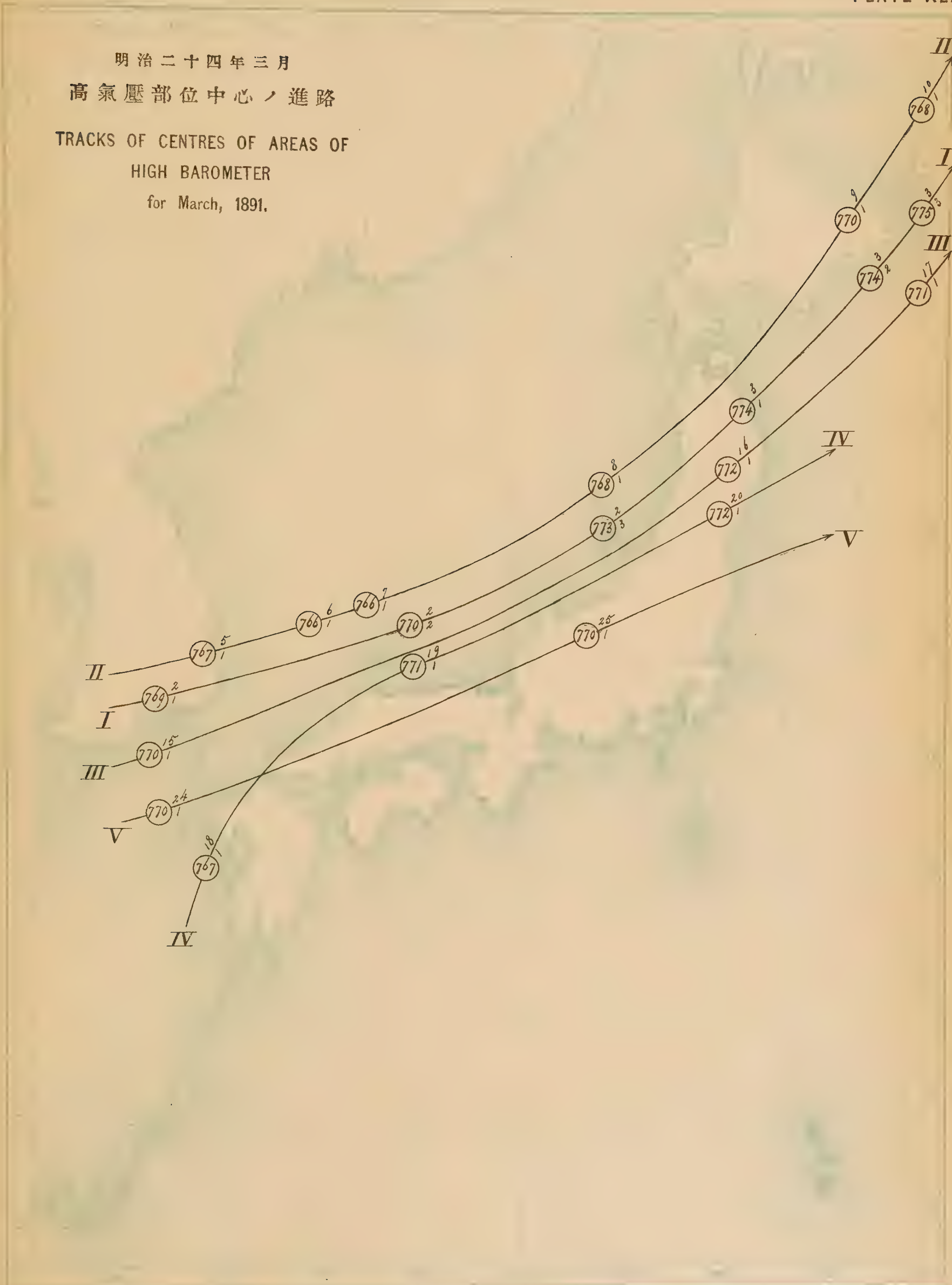
PLATE XL



明治二十四年三月

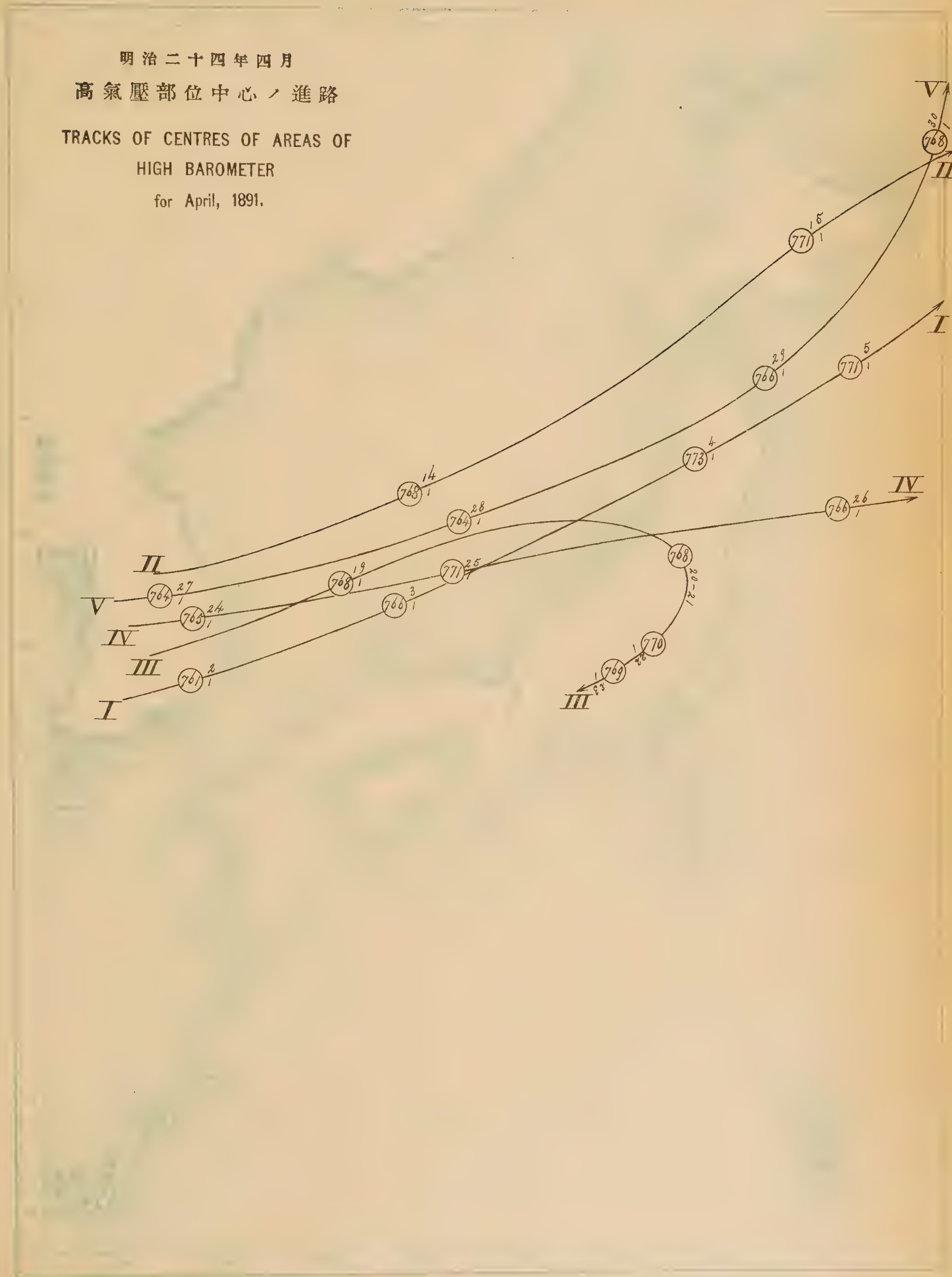
高氣壓部位中心ノ進路

TRACKS OF CENTRES OF AREAS OF HIGH BAROMETER for March, 1891.



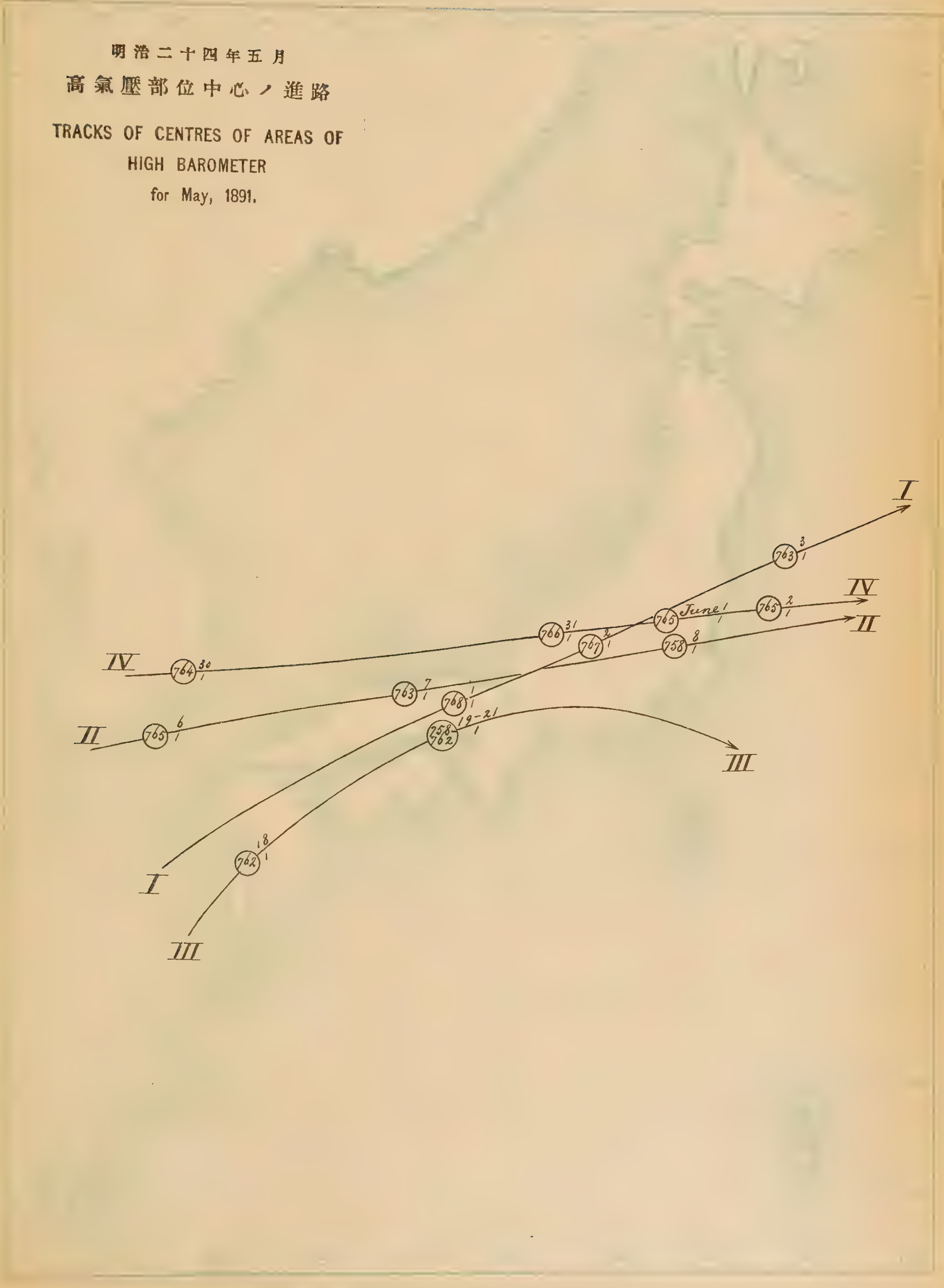
明治二十四年四月
高氣壓部位中心ノ進路

TRACKS OF CENTRES OF AREAS OF HIGH BAROMETER for April, 1891.



明治二十四年五月
高氣壓部位中心ノ進路

TRACKS OF CENTRES OF AREAS OF HIGH BAROMETER for May, 1891.



明治二十四年六月

高氣壓部位中心ノ進路

TRACKS OF CENTRES OF AREAS OF HIGH BAROMETER

for June, 1891.



明治二十四年七月
高氣壓部位中心ノ進路

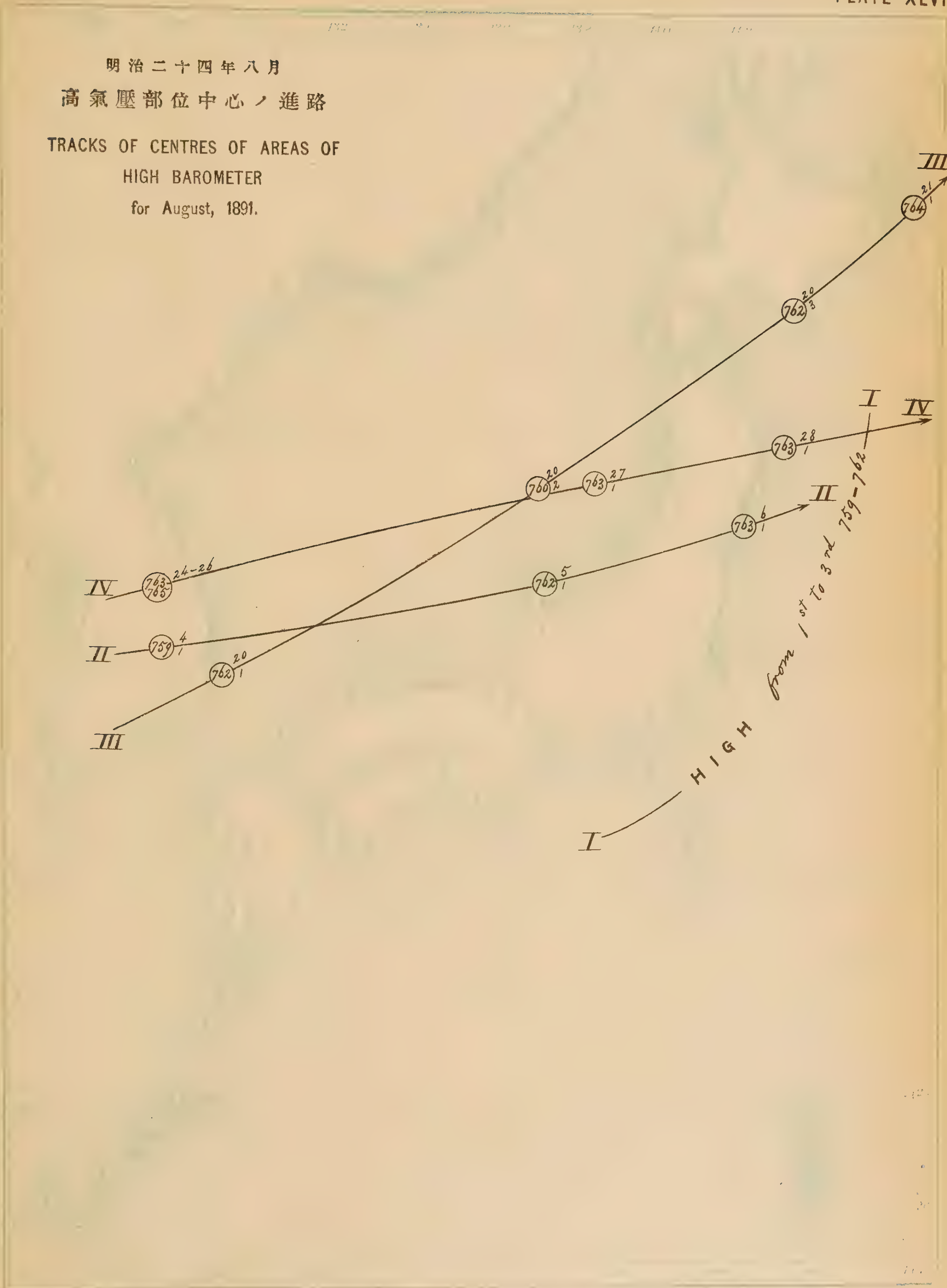
TRACKS OF CENTRES OF AREAS OF HIGH BAROMETER for July, 1891.



明治二十四年八月

高氣壓部位中心ノ進路

TRACKS OF CENTRES OF AREAS OF HIGH BAROMETER for August, 1891.

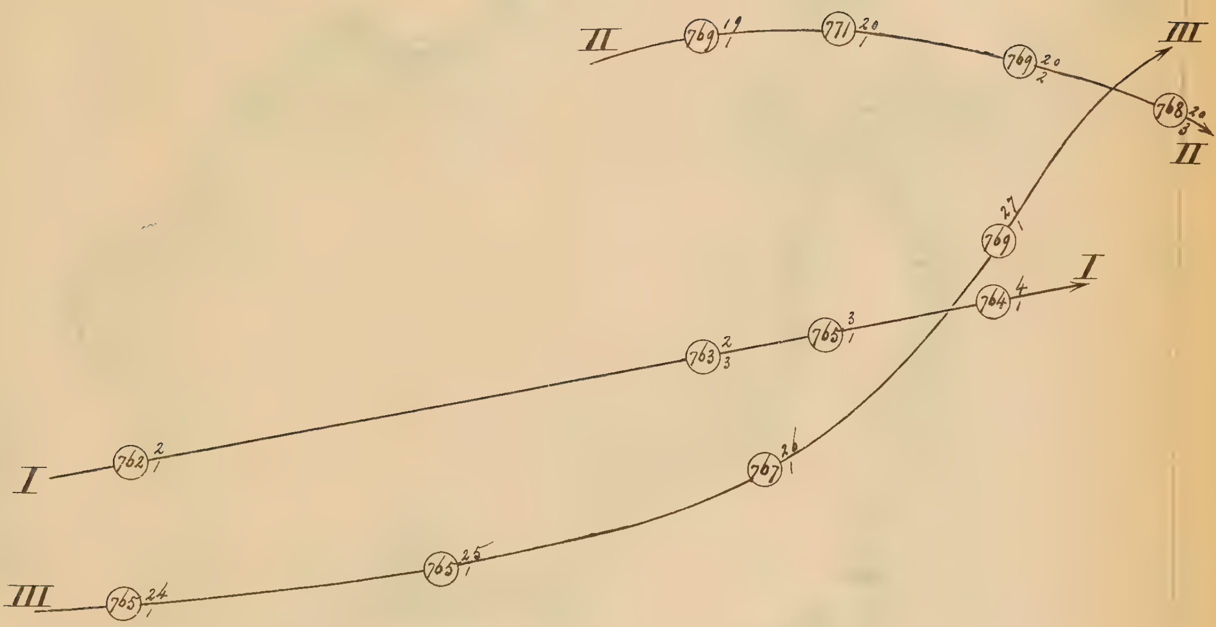


明治二十四年九月

高氣壓部位中心ノ進路

TRACKS OF CENTRES OF AREAS OF HIGH BAROMETER

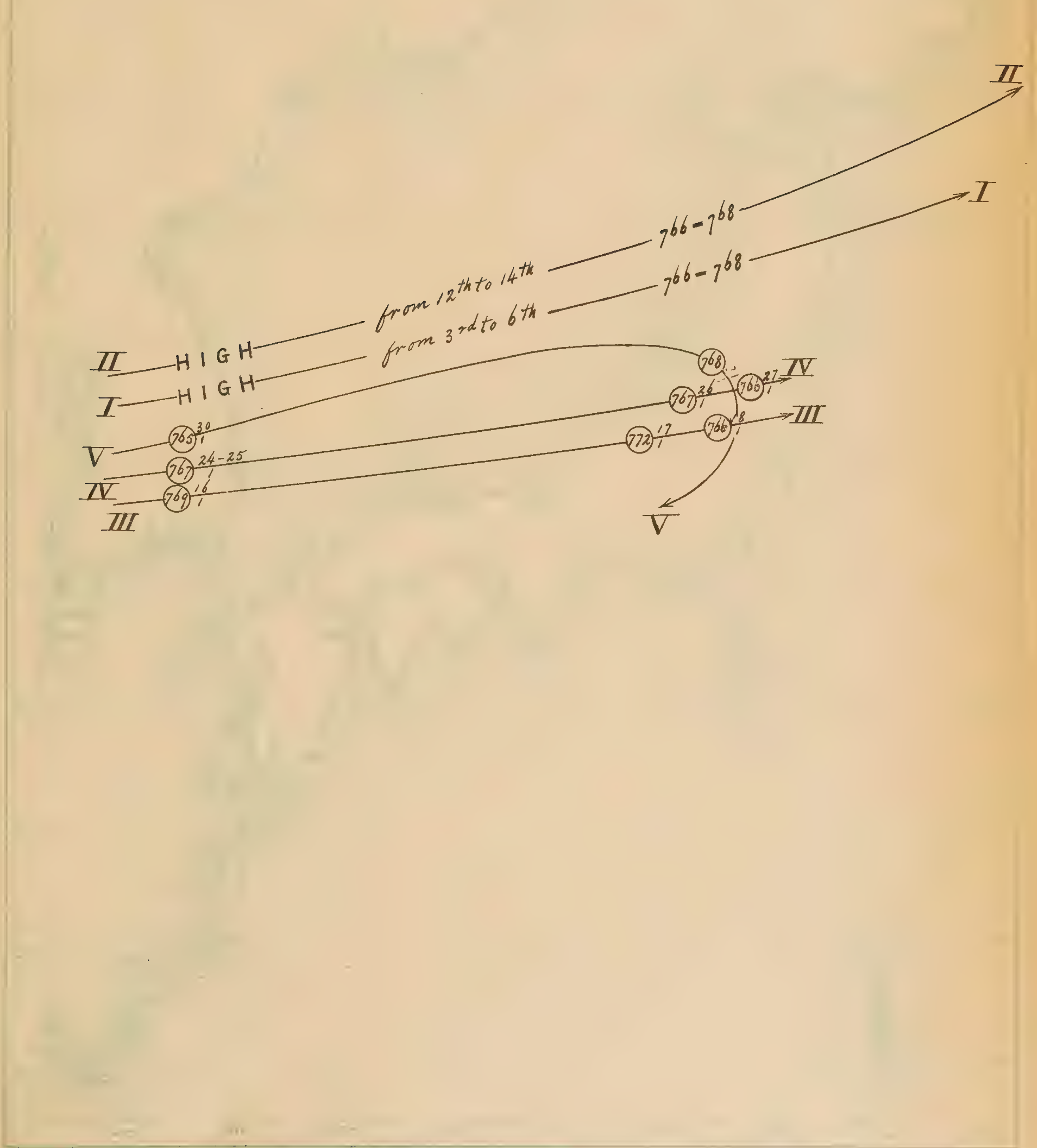
for September, 1891.



明治二十四年十月

高氣壓部位中心ノ進路

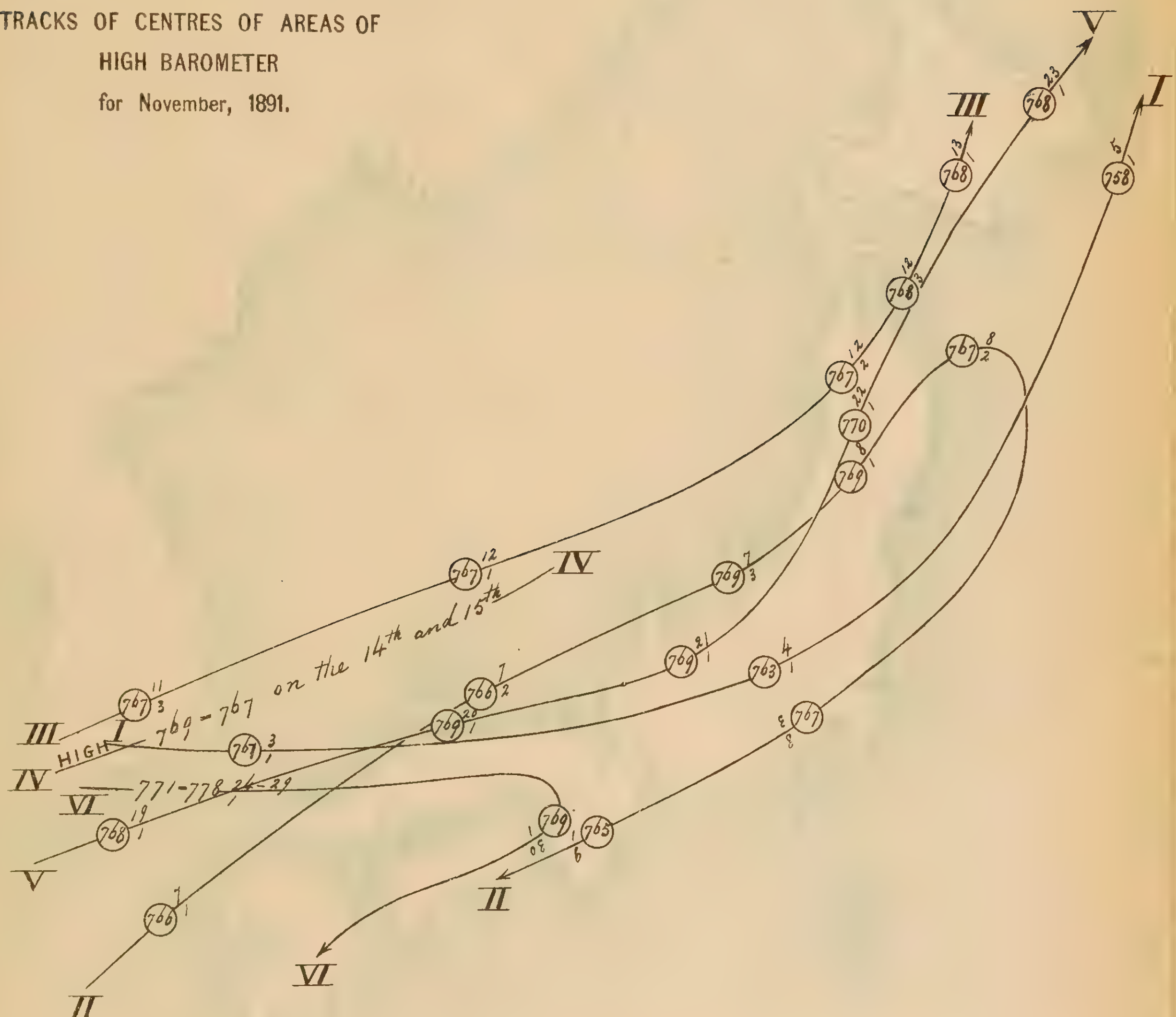
TRACKS OF CENTRES OF AREAS OF HIGH BAROMETER for October, 1891.



明治二十四年十一月

高氣壓部位中心ノ進路

TRACKS OF CENTRES OF AREAS OF HIGH BAROMETER for November, 1891.

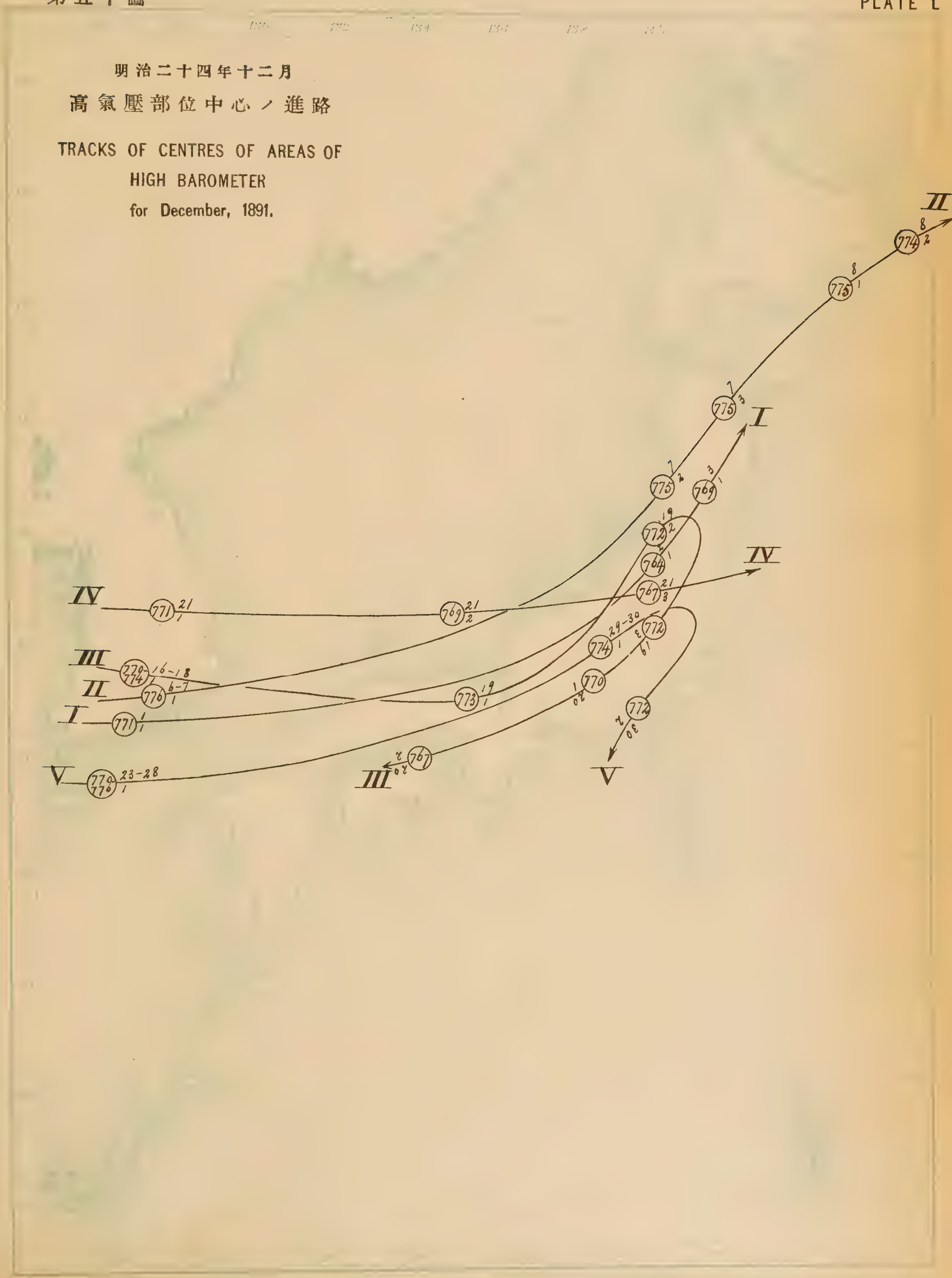


第五十圖

PLATE L

明治二十四年十二月
高氣壓部位中心ノ進路

TRACKS OF CENTRES OF AREAS OF HIGH BAROMETER for December, 1891.



第一表　明治廿四年雨雪總量 (粍)
TABLE I. AMOUNT OF PRECIPITATION IN 1891.

m.m.

番號 No.	地名	Locality.	一月 Jan.	二月 Feb.	三月 Mar.	四月 Apr.	五月 May	六月 June	七月 July	八月 Aug.	九月 Sept.	十月 Oct.	十一月 Nov.	十二月 Dec.	年 Year
		第一區 西海 I. WESTERN SEA.													
1	大瀬崎	Osesaki.	70	69	74	146	53	109	366	143	549	27	46	91	1745
2	伊王島	Iwoshima.	68	112	90	128	103	147	398	395	340	43	64	84	1972
3	蔭ノ尾島	Kagenoshima.	60	78	82	115	107	133	324	390	347	32	33	78	1779
4	長崎	Nagasaki.	98	107	122	125	115	178	388	386	382	39	54	93	2088
5	口ノ津	Kuchinotsu.	28	65	42	63	66	69	235	180	97	19	21	37	922
6	佐賀	Saga.	48	76	105	122	89	210	518	293	385	36	45	89	2016
7	高瀬	Takase.	...	...	...	110	124	167	590	340	195	36	62	76	...
8	隈府	Waifu.	...	...	...	111	126	197	570	277	290	26	73	78	...
9	春日	Kasuga.	...	...	...	100	94	100	448	154	159	38	22	53	...
10	熊本	Kumamoto.	49	122	87	110	106	132	433	178	191	35	25	64	1533
11	宮地	Miyaji.	...	...	...	105	66	190	378	214	279	30	41	66	...
12	御船	Mifune.	...	...	...	118	98	126	419	228	183	28	23	69	...
13	町山口	Machiyamaguchi.	...	...	...	138	132	183	366	446	282	40	69	101	...
14	八代	Yatsushiro.	...	...	...	143	83	131	489	400	231	34	32	66	...
15	人吉	Hitoyoshi.	...	...	...	159	97	245	397	380	357	19	38	85	...
		第二區 南海 II. SOUTHERN SEA.													
1	鹿兒島	Kagoshima.	73	147	110	184	197	99	201	371	321	15	55	95	1867
2	佐多岬	Satanomisaki.	59	86	84	184	177	246	259	187	286	15	48	54	1685
3	鞍崎	Kurasaki.	33	159	94	162	85	166	80	171	222	61	28	47	1309
4	宮崎	Miyazaki.	31	104	156	246	90	216	114	273	637	182	20	78	2149
5	宇和島	Uwajima.	...	...	...	99	71	113	97	102	460	32	28	73	...
6	高知	Kochi.	23	122	123	143	228	515	292	371	677	31	17	122	2665
7	湯淺	Yuasa.	19	40	128	88	107	157	119	339	331	23	29	87	1468
8	御坊	Gobo.	23	44	97	71	92	173	121	187	241	16	54	93	1214
9	田邊	Tanabe.	73	50	125	93	118	169	163	180	301	10	58	61	1401
10	潮岬	Shiwomisaki.	38	136	117	184	113	306	199	238	363	7	72	35	1808
11	樫野崎	Kashinosaki.	86	315	174	205	206	386	336	328	505	36	142	46	2768
12	新宮	Shingu.	59	54	227	77	272	389	140	318	553	59	59	92	2310
13	木ノ本	Kinomoto.	81	257	192	124	157	376	275	277	658	22	61	78	2558
14	尾鷲	Owashi.	...	...	...	217	116	680	207	392	887	73	71	85	...
15	安乘崎	Anorisaki.	3	6	17	11	64	13	14	7	29	3	9	5	182
16	菅島	Sugashima.	22	78	171	112	84	204	132	91	294	125	147	50	1510
17	鳥羽	Toba.	26	89	208	138	113	321	149	233	410	116	114	72	1990
18	宇治山田	Ujiyamada.	...	81	166	115	66	501	176	253	446	63	79	86	...
19	相可	Oka.	...	65	113	106	50	479	161	266	515	27	61	37	...
20	松坂	Matsusaka.	...	65	105	97	53	375	115	207	424	23	54	29	...
21	久居	Hisai.	...	78	110	105	68	360	108	147	344	29	57	23	...
22	新町	Shinmachi.	...	...	77	90	66	360	122	129	479	21	53	23	...
23	津	Tsu.	16	66	71	87	70	372	136	157	389	14	52	29	1458
24	龜山	Kameyama.	...	65	102	59	91	335	182	181	403	14	32	27	...
25	白子	Shiroko.	...	73	77	81	185	294	148	193	298	7	58	61	...
26	四日市	Yokkaichi.	...	70	109	74	112	259	143	233	349	26	70	74	...
27	四日市	Yokkaichi.	35	86	140	77	146	358	189	760	664	39	94	170	2758
28	楚原	Sohara.	...	...	156	78	112	220	231	322	359	39	65	94	...
29	桑名	Kuwana.	23	55	99	64	112	125	110	315	355	36	51	116	1462
30	津島	Tsushima.	29	75	137	66	100	165	202	337	267	13	...	...	...
31	太田島	Otashima.	...	...	...	...	...	...	...	...	...	...	...	47	...
32	小折	Kori.	37	71	119	56	86	144	309	250	307	11	56	72	1519
33	高須	Takasu.	38	80	141	74	119	203	261	412	388	32	114	80	1943
34	高田	Takada.	78	82	166	64	122	283	302	342	445	22	77	82	2064
35	垂井	Tarui.	92	88	138	81	131	321	334	260	392	29	74	113	2054
36	大垣	Ogaki.	80	73	169	93	117	244	409	320	391	...	...	...	...
37	揖斐	Ibi.	17	102	211	124	218	219	265	216	322	...	...	...	...
38	北方	Kitakata.	77	90	155	86	127	196	414	333	350	...	...	...	...
39	笠松	Kasamatsu.	18	57	103	70	97	174	285	229	342	...	...	...	...
40	岐阜	Gifu.	60	89	144	92	109	185	348	287	338	42	60	78	1833
41	高富	Takatomi.	80	90	163	112	156	151	463	249	362	14	...	...	...
42	上有知	Kamiuchi.	83	78	163	115	136	180	472	314	412	26	91	108	2178
43	八幡	Hachiman.	161	109	278	150	179	294	526	514	350	37	103	127	2828
44	太田	Ota.	39	70	123	98	110	125	404	330	369	18	76	75	1828
45	御嵩	Mitake.	46	73	127	99	98	132	434	258	285	10	77	82	1721
46	中津川	Nakatsugawa.	49	64	64	94	91	114	495	132	216	8	17	21	1366
47	稲澤	Inasawa.	33	69	127	72	102	171	264	276	324	21	76	78	1615
48	枇杷島	Biwajima.	31	64	124	74	91	156	270	250	206	8	59	48	1382
49	名古屋	Nagoya.	26	66	116	67	101	145	266	276	289	12	75	80	1520
50	熱田	Atsuta.	34	80	119	69	99	175	227	212	289	7	97	85	1484

第一表 明治廿四年雨雪總量 (粍)
TABLE I. AMOUNT OF PRECIPITATION IN 1891.

番號 No.	地名	Locality.	一月 Jan.	二月 Feb.	三月 Mar.	四月 Apr.	五月 May	六月 June	七月 July	八月 Aug.	九月 Sept.	十月 Oct.	十一月 Nov.	十二月 Dec.	年 Year
51	勝川	Kachikawa.	24	67	115	78	79	177	334	244	292	8	75	98	1592
52	豊濱	Toyohama.	36	50	117	103	78	248	157	107	318	14	79	64	1373
53	半田	Handa.	24	57	82	59	66	202	202	206	209	3	69	51	1230
54	知立	Chiriu.	23	78	114	51	78	146	125	126	247	4	91	49	1133
55	土岐津	Tokitsu.	38	78	122	97	103	139	386	282	285	9	75	94	1707
56	佐久島	Sakushima.	25	50	144	86	89	286	160	92	349	10	64	45	1403
57	西尾	Nishio.	32	57	100	86	99	235	182	141	360	6	76	45	1417
58	岡碕	Okazaki.	33	55	104	87	95	180	278	151	359	5	67	44	1460
59	擧母	Koromo.	53	67	94	82	83	137	175	172	314	3	90	53	1326
60	足助	Asuke.	44	60	88	89	79	175	247	202	424	3	91	69	1572
61	堀切	Horikiri.	18	75	157	123	86	192	116	81	267	53	92	41	1301
62	豐橋	Toyohashi.	25	52	138	99	162	269	170	94	320	16	84	74	1504
63	御油	Goyu.	29	52	184	84	132	254	244	85	395	12	62	76	1609
64	新城	Shinshiro.	44	73	223	116	258	263	293	146	597	14	84	78	2189
65	富岡	Tomioka.	38	72	179	75	229	255	321	119	465	19	97	109	1978
66	田口	Taguchi.	82	112	195	245	185	298	468	278	794	7	80	97	2841
67	濱松	Hamamatsu.	29	62	157	101	153	160	140	43	227	28	74	67	1240
68	下田	Shimoda.	68	82	226	133	232	262	390	264	623	17	94	128	2520
69	御前崎	Omaisaki.	14	150	109	145	127	265	63	20	243	42	40	23	1242
70	沼津	Numazu.	55	113	187	113	88	220	168	40	206	14	83	55	1343
71	石室崎	Irosaki.	17	101	45	89	98	77	57	5	56	3	44	1	592
72	神子元島	Mikomotoshima.	21	102	93	115	50	126	186	11	119	65	108	50	1045
73	城ヶ島	Jogashima.	43	93	178	100	62	128	38	18	28	46	36	38	809
74	劔崎	Tsurugisaki.	36	63	145	53	49	104	92	11	85	46	78	45	807
75	觀音崎	Kanonsaki.	23	42	164	104	94	101	100	37	95	26	142	66	993
76	横須賀	Yokosuka.	14	101	213	137	71	170	110	43	170	34	166	85	1314
77	横濱	Yokohama.	43	74	218	108	54	250	98	52	275	25	167	161	1526
78	品川	Shinagawa.	21	39	83	28	12	255	70	49	277	27	133	66	1060
79	東京	Tokio.	30	67	180	106	52	194	82	45	248	20	139	57	1221
80	野島崎	Noshimasaki.	3	8	17	7	2	11	28	3	1	2	14	4	101
81	鎌足	Kamatari.	19	55	...	...	...	...	...	...	...	...	...	...	...
82	足利	Ashikaga.	...	...	...	...	...	301	224	20	196	45	87	12	...
83	佐野	Sano.	...	...	...	...	...	270	150	78	...	28	86	17	...
84	栃木	Tochigi.	...	...	...	...	...	303	264	88	...	34	89	20	...
85	鹿沼	Kanuma.	...	...	...	...	...	278	286	125	248	44	87	26	...
86	宇都宮	Utsunomiya.	23	54	147	85	52	259	342	136	197	32	104	34	1466
87	眞岡	Maoka.	...	...	...	...	...	183	213	88	263	27	84	36	...
88	眞岡	Maoka.	25	64	128	...	...	297	285	133	272	56	133	66	...
89	銚子	Choshi.	41	89	225	148	56	102	66	20	77	87	135	69	1114
90	犬吠崎	Inuboyesaki.	17	35	173	217	22	93	32	122	110	60	127	80	1089
91	那覇	Naha.	35	169	196	516	455	114	217	422	281	31	98	64	2598
		第三區 東海 III. EASTERN SEA.													
1	矢板	Yaita.	...	...	...	...	...	238	311	277	232	28	72	33	...
2	太田原	Otawara.	...	...	...	...	...	191	297	263	184	33	64	35	...
3	平	Taira.	...	...	...	...	...	340	220	120	203	66	84	106	...
4	富岡	Tomioka.	...	...	...	...	...	418	250	112	253	89	100	68	...
5	中村	Nakamura.	...	...	...	...	...	480	115	75	234	6	68	5	...
6	白河	Shirakawa.	...	...	...	...	...	211	384	125	213	40	75	45	...
7	棚倉	Tanakura.	...	...	...	...	...	283	256	205	171	39	51	58	...
8	石川	Ishikawa.	...	...	...	...	...	252	195	256	71	65	109	59	...
9	須賀川	Sukagawa.	...	...	...	...	...	183	297	99	174	40	90	45	...
10	郡山	Koriyama.	...	...	...	...	...	174	142	79	235	46	49	47	...
11	三春	Miharu.	...	...	...	...	...	178	156	69	180	37	59	44	...
12	二本松	Nihonmatsu.	...	...	...	...	...	192	136	79	207	43	80	62	...
13	福島	Fukushima.	52	72	143	39	25	168	136	83	219	37	63	46	1082
14	桑折	Kori.	...	...	...	...	...	148	155	62	233	41	65	51	...
15	角田	Kakuda.	31	47	184	41	37	266	109	77	207	52	57	38	1147
16	大河原	Okawara.	31	37	196	36	23	209	138	85	109	45	50	48	1007
17	長町	Nagamachi.	24	29	146	37	38	193	87	93	224	30	32	44	977
18	仙臺	Sendai.	78	46	77	35	44	211	132	103	218	35	36	45	1061
19	原ノ町	Haranomachi.	44	46	117	40	44	192	125	108	224	47	33	44	1066
20	吉岡	Yoshioka.	68	62	157	34	39	156	186	139	254	50	36	59	1242
21	野蒜	Nobiru.	21	48	160	44	54	144	89	86	206	28	51	47	977
22	石ノ卷	Ishinomaki.	17	73	172	42	52	105	89	87	176	30	45	58	947
23	金華山	Kinkwasan.	1	80	158	8	5	38	9	31	201	65	100	82	778
24	古川	Furukawa.	...	...	...	...	...	...	...	...	254	...	...	...	...
25	相ノ谷	Ainoya.	...	...	...	...	...	...	...	...	160	...	...	...	...
26	築舘	Tsukidate.	48	36	136	33	56	123	200	131	227	25	32	56	1104
27	佐沼	Sanuma.	...	...	...	...	...	...	...	...	208	...	...	...	...

第一表　明治廿四年雨雪總量 (粍)
TABLE I. AMOUNT OF PRECIPITATION IN 1891.

m.m.

番號 No.	地名	Locality.	一月 Jan.	二月 Feb.	三月 Mar.	四月 Apr.	五月 May	六月 June	七月 July	八月 Aug.	九月 Sept.	十月 Oct.	十一月 Nov.	十二月 Dec.	年 Year
28	志津川	Shizukawa.	38	61	177	61	46	113	95	138	175	41	38	71	1057
29	宮古	Miyako.	22	102	170	65	27	320	109	115	190	35	28	99	1283
30	八戸	Hachinohe.	28	125	81	23	20	74	124	80	173	45	28	83	884
31	七戸	Shichinohe.	19	53	13	6	1	9	18	10	24	4	6	17	180
32	釧路	Kushiro.	...	...	...	...	...	...	...	...	14	2	4	8	...
33	釧路	Kushiro.	10	5	80	43	106	71	147	104	105	39	48	77	836
34	厚岸	Akkeshi.	4	3	101	34	52	121	165	120	166	78	25	96	967
35	落石崎	Otchishisaki.	91	94	276	91	100	196	223	91	189	117	55	132	1657
36	納沙布崎	Noshiafsaki.	51	14	3	6	10	6	94	60	101	112	30	41	531
37	根室	Nemuro.	14	8	93	46	72	87	155	72	136	78	42	69	872
38	辨天島	Bentenshima.	11	16	17	9	17	162	76	68	93	22	25	9	466
	第四區內海	IV. INLAND SEA.													
	甲南岸	a S. Coast.													
1	部崎	Hesaki.	9	36	129	97	53	344	611	211	284	9	32	59	1875
2	大分	Oita.	18	83	111	96	35	190	245	264	291	49	24	45	1451
3	宇和	Uwa.	...	...	...	109	139	147	241	65	265	21	43	89	...
4	八幡濱	Yawatahama.	...	...	...	93	77	153	254	166	312	29	28	76	...
5	大洲	Ozu.	...	...	...	89	73	119	252	161	303	39	33	89	...
6	久万町	Kumamachi.	...	...	52	98	89	137	274	270	360	28	40	127	...
7	郡中	Gunchu.	...	...	...	46	45	53	190	78	187	29	18	54	...
8	松山	Matsuyama.	38	51	40	70	51	112	178	151	147	30	16	44	928
9	三津濱	Mitsuhama.	...	...	...	64	22	50	219	139	123	26	17	32	...
10	釣島	Tsurishima.	18	63	43	58	58	145	263	186	177	28	11	140	1191
11	今治	Imabari.	...	...	...	...	31	71	140	172	144	42	39	36	...
12	西條	Saijo.	...	...	...	38	31	84	71	224	227	59	33	18	...
13	川ノ江	Kawanoe.	...	...	...	78	37	107	138	233	245	80	27	33	...
14	鍋島	Nabeshima.	2	5	5	5	4	9	9	16	15	2	2	1	76
15	德島	Tokushima.	...	...	...	...	...	...	120	652	227	16	15	24	...
	乙北岸	b N. Coast.													
1	上保木	Kamiboki.	43	103	137	95	58	299	481	211	253	18	49	89	1837
2	殿敷	Tonoshiki.	...	...	149	105	...	...	...	...	...	...	...	...	...
3	西須惠	Nishisue.	45	72	129	87	46	367	546	179	200	9	40	74	1794
4	船木	Funaki.	51	73	122	77	60	332	531	187	267	16	35	115	1867
5	伊佐	Isa.	...	...	130	101	70	332	482	196	253	26	51	83	...
6	太田	Ota.	59	131	149	94	57	281	442	193	261	21	93	78	1829
7	山口	Yamaguchi.	51	113	151	118	76	295	540	278	246	36	78	91	2073
8	御堀	Mihori.	41	100	135	120	80	269	475	261	...	33	75	90	...
9	三田尻	Mitajiri.	35	74	97	92	86	274	416	222	182	31	65	99	1674
10	堀	Hori.	...	...	144	98	115	293	491	290	254	44	68	118	...
11	德山	Tokuyama.	44	74	59	114	138	265	466	206	180	48	67	86	1747
12	室積	Murotsumi.	31	62	61	96	113	190	427	252	195	45	82	90	1644
13	柳井	Yanai.	41	...	81	...	...	...	...	...	...	...	...	...	...
14	東屋代	Higashiyashiro.	40	74	84	103	124	189	288	204	232	50	48	77	1513
15	伊保田	Ihota.	32	58	57	93	75	115	235	176	125	28	30	66	1090
16	下久原	Shimokubara.	...	90	118	109	159	300	442	157	265	11	76	134	...
17	須々万本鄉	Susumahongo.	...	99	161	135	170	361	534	188	307	51	102	123	...
18	横山	Yokoyama.	41	78	104	108	102	273	460	201	288	36	54	112	1858
19	鹿野上	Kanokami.	107	89	136	121	172	233	501	285	245	37	89	173	2189
20	本鄉	Hongo.	99	96	129	106	132	279	491	271	371	28	91	161	2254
21	二十日市	Hatsukaichi.	27	69	103	87	88	187	388	193	201	12	47	79	1481
22	廣島	Hiroshima.	23	72	78	92	77	222	367	171	172	18	35	88	1417
23	吉浦	Yoshiura.	28	79	69	93	70	194	284	184	172	44	28	47	1292
24	可部	Kabe	78	73	90	89	69	221	370	235	100	16	31	64	1437
25	西條	Saijo.	38	56	59	86	63	140	255	104	125	18	26	46	1016
26	忠海	Tadanomi.	22	60	43	80	43	83	161	139	93	13	43	31	812
27	尾道	Onomichi.	33	42	30	73	26	103	145	105	65	20	21	26	689
28	府中市	Fuchuichi.	26	71	60	45	45	207	158	108	77	10	24	49	882
29	福山	Fukuyama.	22	56	49	71	31	132	156	111	67	19	28	31	774
30	高梁	Takahashi.	...	...	...	...	...	...	...	...	...	11	23	43	...
31	岡山	Okayama.	21	46	53	53	43	153	102	141	102	11	23	28	776
32	久世	Kuse.	...	...	...	...	...	...	...	...	...	...	60	45	...
33	津山	Tsuyama.	...	...	...	...	...	...	...	...	90	20	34	32	...
34	江崎	Yesaki.	26	73	65	47	53	110	98	216	273	8	29	30	1028
35	和田岬	Wadanomisaki.	6	20	24	39	39	120	47	61	23	0	1	8	390
36	神戸	Kobe.	40	56	80	50	89	73	82	167	191	2	18	61	909
37	本西島	Hontorishima.	...	...	63	114	42	109	97	107	159	6	28	39	...
38	天保山	Temposan.	10	18	29	26	14	39	43	32	58	0	9	16	295
39	大阪	Osaka.	34	58	83	85	49	159	130	97	155	8	31	52	942
40	天王寺	Tennoji.	45	62	62	64	43	130	59	89	146	4	34	47	786

第一表 明治廿四年雨雪總量（粍）
TABLE I. AMOUNT OF PRECIPITATION IN 1891.

m.m.

番號 No.	地名	Locality.	一月 Jan.	二月 Feb.	三月 Mar.	四月 Apr.	五月 May	六月 June	七月 July	八月 Aug.	九月 Sept.	十月 Oct.	十一月 Nov.	十二月 Dec.	年 Year
41	大信寺	Daishinji.	28	59	77	68	40	170	128	117	137	4	32	59	920
42	池田	Ikeda.	33	50	102	97	75	157	159	195	172	9	27	38	1114
43	茨木	Ibaraki.	35	58	95	64	54	166	241	201	154	2	28	38	1138
44	枚方	Hirakata.	29	55	104	93	56	134	143	98	134	29	35	59	971
45	園部	Sonobe.	...	...	...	...	...	...	198	184	140	11	34	54	...
46	龜岡	Kameoka.	...	...	...	...	...	...	204	194	158	9	38	40	...
47	向日	Muko.	...	...	...	...	...	...	174	176	148	21	36	56	...
48	伏見	Fushimi.	...	...	...	...	...	...	170	126	139	8	41	60	...
49	淀	Yodo.	...	...	...	...	...	...	234	107	138	14	38	72	...
50	田邊	Tanabe.	...	...	...	...	...	...	199	106	163	11	55	61	...
51	木津	Kizu.	...	...	...	...	...	...	136	109	157	1	47	60	...
52	周山	Shuzan.	...	...	...	...	...	...	277	158	165	17	64	54	...
53	太秦	Uzumasa.	...	...	...	...	...	...	247	206	158	10	46	63	...
54	京都	Kioto.	33	62	121	88	64	162	225	309	154	10	45	54	1328
55	田中	Tanaka.	...	...	...	...	...	...	222	244	149	14	52	52	...
56	醍醐	Daigo.	...	...	...	...	...	...	230	132	134	4	50	58	...
57	名張	Nabari.	...	51	76	70	73	202	133	142	252	8	41	38	...
58	上野	Ueno.	24	63	73	74	53	225	181	228	210	6	51	97	1285
59	堺	Sakai.	32	65	78	70	44	133	121	124	156	5	24	67	918
60	長承寺	Choshoji.	38	50	71	69	45	132	131	150	149	5	21	50	911
61	富田林	Tondabayashi.	35	77	67	77	80	185	95	139	145	5	27	49	983
62	岸和田	Kishiwada.	21	59	71	62	50	123	123	112	174	15	23	49	884
63	苫ヶ島	Tomagashima.	32	35	76	51	60	98	137	213	361	7	19	73	1162
64	和歌山	Wakayama.	38	52	81	78	73	105	178	210	235	6	24	96	1177
65	秋月	Akizuki.	30	20	37	73	75	82	155	145	231	6	28	66	948
66	清水	Shimizu.	...	12	80	76	83	124	127	135	205	8	33	73	...
67	古佐田	Kosada.	49	74	145	102	100	134	37?	101	162	13	21	47	986?
68	高野山	Koyasan.	57	53	125	118	88	287	146	277	381	9	60	120	1722
	第五區 日本海	V. SEA OF JAPAN.													
1	烏帽子島	Yeboshishima.	31	39	35	64	17	196	707	81	161	8	65	43	1448
2	福岡	Fukuoka.	57	85	87	83	39	134	669	212	301	33	52	60	1811
3	白洲	Shirasu.	59	105	168	162	55	378	738	237	467	19	47	116	2551
4	六連島	Mutsureshima.	144	152	76	53	41	412	465	182	349	15	50	84	2022
5	赤間關	Akamagaseki.	43	75	102	93	42	293	494	183	261	12	33	64	1694
6	小串	Kokushi.	64	93	109	107	52	287	456	170	251	14	42	64	1710
7	嚴原	Itsugahara.	83	78	134	118	213	401	1152	267	619	18	59	112	3254
8	角島	Tsunoshima.	72	94	98	120	32	313	436	143	300	10	69	53	1742
9	神田下	Kandashimo.	71	83	73	87	44	288	520	140	381	13	37	62	1800
10	向津具	Mukatsuku.	88	98	...	...	...	...	476	125	340	...	...	58	...
11	深川	Fukagawa.	67	154	127	107	39	225	438	175	322	20	73	76	1823
12	佐々並	Sasanami.	94	176	202	117	111	269	369	157	389	21	105	128	2138
13	生雲中	Ikumonaka.	77	127	117	75	77	236	392	224	295	23	103	130	1878
14	德佐中	Tokusanaka.	165	168	129	93	81	...	370	264	309	29	106	...	...
15	萩	Hagi.	78	135	123	93	29	203	420	163	324	27	119	85	1799
16	須佐	Susa.	95	150	131	119	38	238	441	124	315	45	86	90	1873
17	津和野	Tsuwano.	...	...	...	...	...	150	203	169	288	24	88	76	...
18	益田	Masuta.	...	...	...	91	34	192	390	184	211	37	91	104	...
19	濱田	Hamada.	...	...	...	...	48	185	372	175	193	59	128	107	...
20	吉田	Yoshida.	73	55	75	92	47	178	322	179	335	21	42	50	1471
21	三次	Miyoshi.	133	54	83	96	113	237	292	121	223	31	50	53	1486
22	庄原	Shohara.	17	27	2	37	39	213	337	106	78	4	27	62	949
23	川本	Kawamoto.	...	...	...	...	...	...	...	...	...	...	88	82	...
24	大森	Omori.	...	...	...	...	...	231	506	99	357	73	116	130	...
25	掛合	Kakeya.	...	...	...	...	53	195	396	215	182	28	129	110	...
26	今市	Imaichi.	...	...	...	...	...	152	333	129	189	19	105	85	...
27	廣瀬	Hirose.	...	...	...	...	...	177	216	164	182	29	103	82	...
28	米子	Yonago.	...	...	...	60	50	121	213	84	139	50	79	41	...
29	境	Sakai.	227	160	134	88	56	198	308	179	170	16	198	119	1854
30	二部宿	Nibujuku.	...	...	...	80	21	149	257	121	133	32	95	42	...
31	倉吉	Kurayoshi.	...	...	...	90	19	160	229	86	158	76	101	68	...
32	郡家	Koge.	...	...	...	94	23	180	260	97	97	59	94	68	...
33	吉岡	Yoshioka.	...	...	...	92	31	207	214	105	175	39	145	106	...
34	鳥取	Tottori.	...	...	...	86	34	160	222	118	137	59	113	125	...
35	久美濱	Kumihama.	...	...	...	...	...	...	214	112	180	53	258	194	...
36	網野	Amino.	...	...	...	...	...	...	...	101	217	49	212	221	...
37	峰山	Mineyama.	...	...	...	...	...	...	220	112	247	50	183	209	...
38	宮津	Miyatsu.	...	...	...	...	...	...	226	113	186	53	124	135	...
39	福知山	Fukuchiyama.	...	...	...	...	...	...	261	211	161	15	65	46	...
40	綾部	Ayabe.	...	...	...	...	...	...	224	150	151	10	77	48	...

第一表 明治廿四年雨雪總量 (粍)
TABLE I. AMOUNT OF PRECIPITATION IN 1891.

m.m.

番號 No.	地名	Locality.	一月 Jan.	二月 Feb.	三月 Mar.	四月 Apr.	五月 May	六月 June	七月 July	八月 Aug.	九月 Sept.	十月 Oct.	十一月 Nov.	十二月 Dec.	年 Year
41	舞鶴	Maitsuru.	...	...	...	...	...	...	295	134	167	43	156	83	...
42	立石岬	Tateishinohana.	556	178	127	96	62	169	206	133	121	79	172	282	2181
43	金澤	Kanazawa.	493	155	139	131	66	156	231	233	172	88	191	343	2401
44	祿剛崎	Rokkosaki.	444	124	114	122	44	144	288	140	234	33	299	378	2365
45	伏木	Fushiki.	547	152	150	78	52	141	223	197	192	44	171	292	2239
46	高山	Takayama.	43	54	55	67	97	196	280	216	182	53	77	73	1393
47	糸魚川	Itoigawa.	...	...	104	45	50	123	276	156	284	198	327	391	...
48	高城	Takagi.	...	...	112	80	31	111	364	122	168	362	...	526	...
49	柏崎	Kashiwasaki.	228	98	143	80	27	143	357	147	175	108	102	378	1987
50	相川	Aikawa.	197	127	206	100	60	113	320	123	106	59	131	115	1657
51	長野	Nagano.	62	41	57	35	40	97	215	53	87	6	65	51	809
52	十日町	Tokamachi.	...	...	80	82	60	137	296	181	113	55	176	...	...
53	六日町	Muikamachi.	...	162	110	94	86	164	307	154	131	169	248	...	...
54	小千谷	Ojiya.	...	...	153	90	46	128	380	169	172	93	317	...	...
55	三條	Sanjo.	406	123	120	76	55	92	282	104	131	98	249	283	2019
56	新津	Niitsu.	163	89	124	858	56	105	325	143	222	122	248	208	2661
57	新潟	Niigata.	372	87	108	87	51	97	302	158	271	78	157	110	1878
58	新潟	Niigata.	276	64	109	96	59	91	273	196	229	67	165	80	1707
59	田島	Tajima.	...	...	...	...	...	144	286	149	201	34	108	63	...
60	高田	Takata.	...	...	...	...	...	144	265	76	141	33	127	102	...
61	若松	Wakamatsu.	...	...	...	...	...	125	254	129	145	31	97	88	...
62	猪苗代	Inawashiro.	...	...	...	...	...	...	...	...	125	29	...	...	...
63	坂下	Bange.	...	...	...	...	...	134	261	95	144	22	121	140	...
64	喜多方	Kitakata.	...	...	...	...	...	112	248	78	120	20	104	75	...
65	津川	Tsugawa.	...	...	...	59	51	61	221	100	111	58	...	76	...
66	村上	Murakami.	148	126	131	69	81	103	280	221	146	113	168	174	1761
67	山形	Yamagata.	133	49	115	36	52	94	141	113	161	38	60	42	1035
68	本莊	Honjo.	178	152	94	108	...	...	...	...	346	111	198	175	...
69	湯澤	Yuzawa.	...	...	79	58	24	89	206	253	196	54	140	145	...
70	横手	Yokote.	202	82	88	95	54	46	277	172	257	67	376	154	1871
71	大曲	Omagari.	229	142	78	64	55	55	308	220	278	104	173	47	1757
72	秋田	Akita.	137	122	75	89	111	51	249	211	260	126	217	172	1820
73	船川	Funakawa.	188	154	50	97	76	45	333	111	267	183	188	216	1909
74	能代	Noshiro.	108	65	74	85	92	47	286	145	251	137	131	174	1596
75	鷹巢	Takanosu.	288	127	136	94	171	91	314	175	291	128	183	222	2223
76	花輪	Hanawa.	147	99	78	68	41	32	167	80	206	64	10	137	1227
77	鰺ヶ澤	Ajigasawa.	166	82	94	40	0	0	109	147	249	47	67	49	1050
78	鴎島	Kamomeshima.	129	25	34	100	68	51	236	148	191	103	139	135	1360
79	稲穂崎	Inahosaki.	...	...	...	...	...	...	...	...	...	...	...	7	...
80	辨慶崎	Benkeisaki	40	35	11	13	13	2	25	64	81	125	97	78	584
81	壽都	Suttu.	131	132	63	79	49	16	120	110	91	183	150	108	1235
82	神威岬	Kamoisaki.	382	422	63	108	89	1	193	130	42	185	132	75	1822
83	日和山	Hiyoriyama.	227	181	64	73	43	16	238	95	46	151	79	80	1295
84	札幌	Sapporo.	66	55	33	30	27	12	198	161	88	116	95	95	977
85	上川	Kamikawa.	78	21	45	88	70	46	219	158	76	148	96	84	1130
86	增毛	Mashike.	10	3	4	7	4	1	16	13	5	19	22	27	132
87	仁川	Jenchuan.	29	18	28	22	117	125	211	245	187	41	20	93	1136
88	釜山	Fusan.	53	23	74	65	84	196	446	81	356	2	7	35	1423
89	元山	Yuensan.	49	58	18	4	19	159	164	292	351	38	64	74	1289
90	浦潮港	Vladivostok.	1	—	16	14	69	115	53	110	36	—	12	42	468

第六區 津輕海峽 VI. TSUGARU STRAIT.

番號 No.	地名	Locality.	一月 Jan.	二月 Feb.	三月 Mar.	四月 Apr.	五月 May	六月 June	七月 July	八月 Aug.	九月 Sept.	十月 Oct.	十一月 Nov.	十二月 Dec.	年 Year
1	富田	Tomita.	24	41	13	23	15	14	18	8	212	47	58	32	504
2	黑石	Kuroishi.	89	0	8	34	34	24	159	55	266	...	66	32	...
3	五所川原	Goshogawara.	287	131	76	36	39	17	122	123	281	125	128	70	1435
4	青森	Aomori.	212	117	93	51	45	42	152	152	301	65	115	168	1514
5	田名部	Tanabu.	135	110	75	49	35	205	277	140	188	40	77	127	1458
6	尻矢崎	Shiriyasaki.	72	74	52	79	66	117	213	123	266	66	146	179	1454
7	福山	Fukuyama.	189	64	37	62	73	8	110	211	232	87	141	181	1397
8	白神崎	Shirakamisaki.	192	104	11	87	94	171	80	65	103	42	111	155	1215
9	葛登支岬	Kattojimisaki.	252	288	107	46	55	129	234	145	295	76	186	214	2029
10	函館	Hakodate.	169	33	44	65	63	112	144	124	229	67	100	104	1255
11	惠山岬	Yesanmisaki.	73	83	86	57	11	167	564	419	375	86	120	103	2143
12	襟裳岬	Erimomisaki.	15	3	102	27	96	40	192	59	109	36	31	103	814

第七區 阿哥斯克海 VII. OKHOTSK SEA.

番號 No.	地名	Locality.	一月 Jan.	二月 Feb.	三月 Mar.	四月 Apr.	五月 May	六月 June	七月 July	八月 Aug.	九月 Sept.	十月 Oct.	十一月 Nov.	十二月 Dec.	年 Year
1	宗谷岬	Soyamisaki.	5	3	2	21	26	4	25	12	86	200	138	137	659
2	網走	Abashiri.	23	5	54	11	40	58	96	86	50	99	42	39	605

明治廿四年
第二表 一日中最多雨雪量（粍）
TABLE II. GREATEST AMOUNT OF PRECIPITATION IN A DAY, 1891.

m.m.

番號 No.	地名	Locality.	一月 Jan. 量 Am.	日 Day	二月 Feb. 量 Am.	日 Day	三月 Mar. 量 Am.	日 Day	四月 Apr. 量 Am.	日 Day	五月 May 量 Am.	日 Day	六月 June 量 Am.	日 Day	七月 July 量 Am.	日 Day	八月 Aug. 量 Am.	日 Day	九月 Sept. 量 Am.	日 Day	十月 Oct. 量 Am.	日 Day	十一月 Nov. 量 Am.	日 Day	十二月 Dec. 量 Am.	日 Day	年 Year 量 Am.	月日 Date.
	第一區 西海	I. WESTERN SEA.																										
1	大瀬崎	Osesaki.	11	15	16	4	18	17	48	5	22	15	79	29	263	13	72	23	185	25	12	27	31	9	28	3	263	13VII
2	伊王島	Iwoshima.	12	30	21	4	18	27	25	13	33	25	56	15	128	13	147	23	170	8	39	27	36	10	34	8	170	8IX
3	蔭ノ尾島	Kagenoshima.	17	4	17	4	21	4	20	13	31	25	57	15	98	13	104	23	171	8	30	27	13	10	25	20	171	8IX
4	長崎	Nagasaki.	22	15	29	4	23	17	22	13	32	4	79	15	106	13	133	23	176	8	32	27	26	10	28	8	176	8IX
5	口ノ津	Kuchinotsu.	8	30	18	4	11	3	19	11	24	25	35	15	58	15	39	3	40	8	15	27	13	10	19	8	58	15VII
6	佐賀	Saga.	16	30	31	4	29	21	26	11	31	25	68	30	84	12	73	21	131	8	32	27	25	10	29	20	131	8IX
7	高瀬	Takase.	...	...	...	...	...	...	33	13	47	15	74	15	203	20	89	23	60	14	29	27	31	4	21	7	...	...
8	隈府	Waifu.	...	...	...	...	...	...	27	14	40	24	50	15	120	12	63	21	62	9	15	26	23	10	14	19	...	...
9	春日	Kasuga.	...	...	...	...	...	...	23	13	35	24	53	15	138	12	42	1	38	8	31	27	13	9	19	7	...	...
10	熊本	Kumamoto.	16	4	26	4	16	3	23	26	39	25	59	15	105	14	40	5	70	8	31	27	13	10	19	8	105	14VII
11	宮地	Miyaji.	...	...	...	...	...	...	40	13	27	24	62	15	120	20	40	3	130	13	30	27	13	22	38	20	...	...
12	御船	Mifune.	...	...	...	...	...	...	24	13	36	24	49	15	118	14	49	21	88	13	15	27	14	9	18	3	...	...
13	町山口	Machiyamaguchi.	...	...	...	...	...	...	35	13	48	24	64	15	80	11	111	4	78	13	19	27	30	10	35	7	...	...
14	八代	Yatsushiro.	...	...	...	...	...	...	36	13	35	24	53	15	145	14	142	16	79	13	17	27	20	9	25	7	...	...
15	人吉	Hitoyoshi.	...	...	...	...	...	...	51	13	33	4	64	29	91	9	88	2	106	13	10	27	26	9	29	7	...	...
	第二區 南海	II. SOUTHERN SEA.																										
1	鹿兒島	Kagoshima.	28	30	56	4	29	17	34	14	92	4	30	15	44	1	82	22	107	14	7	13	52	10	44	8	107	14IX
2	佐多岬	Satanomisaki.	13	31	17	27	19	20	40	29	72	4	74	26	97	1	60	18	82	14	7	27	47	10	21	8	97	1VII
3	鞍崎	Kurasaki.	14	30	109	4	20	27	43	14	48	4	44	26	25	4	28	5	42	19	33	27	14	10	28	8	109	4II
4	宮崎	Miyazaki.	14	27	56	4	32	21	61	6	43	4	76	15	25	1	74	27	98	21	65	17	19	10	40	8	98	21IX
5	宇和島	Uwajima.	...	...	...	...	...	...	34	11	27	24	60	15	21	14	32	2	222	13	20	27	7	10	16	3	...	...
6	高知	Kochi.	10	4	55	4	41	17	28	11	125	15	166	16	67	2	98	2	172	21	8	18	13	10	78	8	172	21IX
7	湯淺	Yuasa.	8	30	15	5	28	17	21	26	33	4	74	24	30	21	104	16	118	8	9	13	15	10	38	3	118	8IX
8	御坊	Gobo.	16	30	14	5	31	9	14	26	32	4	65	24	60	1	66	16	72	29	8	13	18	10	48	8	72	29IX
9	田邊	Tanabe.	47	30	17	4	24	9	27	26	35	4	50	30	58	4	83	16	92	29	5	2	26	12	26	8	92	29IX
10	潮岬	Shiwomisaki.	16	31	47	21	37	4	90	6	46	3	115	16	85	5	77	23	112	30	5	18	55	10	15	4	115	16VI
11	樫野崎	Kashinosaki.	57	4	195	5	49	4	62	6	61	3	134	16	114	5	102	4	100	21	16	23	63	13	22	4	195	5II
12	新宮	Shingu.	35	30	18	5	69	27	45	26	66	15	102	3	70	4	110	16	153	29	23	13	55	10	66	8	153	29IX
13	木ノ本	Kinomoto.	57	31	193	6	73	21	37	6	68	15	98	20	131	4	104	16	225	29	13	13	29	12	62	8	225	29IX
14	尾鷲	Owashi.	...	...	...	...	...	...	45	6	78	15	270	20	89	4	151	16	192	29	41	13	36	12	72	8	...	...
15	安乘崎	Anorisaki.	3	31	3	5	8	10	4	26	31	5	4	25	5	5	2	17	6	30	1	27	6	10	4	8	31	5V
16	管島	Sugashima.	13	31	24	6	51	21	54	6	19	16	111	25	26	5	18	4,6,28	54	8	93	23	71	10	27	8	111	25VI
17	鳥羽	Toba.	12	31	35	4	36	21	45	6	32	15	116	24	55	4	53	17	117	29	66	22	52	10	46	8	117	29IX
18	宇治山田	Ujiyamada.	...	...	29	5	39	4	43	6	20	15	144	20	72	4	110	5	125	29	39	27	46	12	73	8	...	...
19	相可	Oka.	...	...	20	5	31	9	35	6	14	16,25	245	21	43	4	80	5	186	29	22	27	29	12	29	8	...	...
20	松坂	Matsusaka.	...	...	19	5	29	4	23	6	14	5	247	20	38	4	67	16	191	29	19	27	26	12	22	8	...	...
21	久居	Hisai.	...	...	18	5	29	4	26	6	22	25	180	20	20	14	41	16	75	29	23	27	21	12	15	8	...	...
22	新町	Shinmachi.	...	...	...	...	21	3	21	6	25	25	208	20	28	21	43	16	150	29	14	27	29	12	17	8	...	...
23	津	Tsu.	8	4	26	5	19	10	32	26	27	25	139	21	33	21	49	23	171	30	9	28	26	13	17	8	171	30IX
24	龜山	Kameyama.	...	...	20	5	25	3	19	6	24	4	148	20	47	1	58	5	183	29	8	27	12	12	14	8	...	...
25	白子	Shiroko.	...	...	20	5	18	10	26	26	25	4	100	20	47	21	46	5	133	29	7	27	38	12	51	8	...	...
26	四日市	Yokkaichi.	...	...	21	5	37	21	18	6	30	4	111	20	40	1	99	5	139	29	14	27	33	12	53	8	...	...
27	四日市	Yokkaichi.	10	4	36	5	46	21	35	26	47	3	167	21	30	2	200	23	210	13	21	23	39	10	157	8	210	13IX
28	楚原	Sohara.	...	...	...	...	59	21	27	6	39	4	108	20	38	15	87	6	116	29	19	22	35	10	41	8	...	...
29	桑名	Kuwana.	7	30	20	4	32	21	21	6	39	3	88	20	28	23	80	16	121	29	20	22	46	12	71	3	121	29IX
30	津島	Tsushima.	17	4	24	4	36	21	16	6	26	4	83	20	62	1	86	5	102	29	11	22	...	...	...	...	...	...
31	大田島	Otashima.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	15	8	...	...
32	小折	Kori.	13	30	26	4	31	9	13	6	21	2	45	20	69	16	85	5	96	29	8	22	27	12	34	8	96	29IX
33	高須	Takasu.	16	4	28	4	35	21	18	15	34	2	77	20	45	2	241	5	121	29	19	22	46	10	46	8	241	5VIII
34	高田	Takada.	22	4	30	4	42	21	25	15	33	2	124	20	66	1	154	5	117	29	17	27	27	10	35	8	154	5VIII
35	垂井	Tarui.	28	4	27	4	36	21	26	15	45	15	121	20	49	14	84	16	92	29	27	27	21	10	35	8	127	20VI
36	大垣	Ogaki.	22	4	26	4	47	21	23	15	28	4	75	20	52	4	107	5	100	21	...	...	...	...	...	...	...	...
37	揖斐	Ibi.	5	15	76	4	51	21	28	15	63	15	96	20	70	23	74	17	81	8	...	...	...	...	...	...	...	...
38	北方	Kitakata.	28	4	34	4	41	21	24	15	29	4	54	20	53	21	150	5	84	29	...	...	...	...	...	...	...	...
39	笠松	Kasamatsu.	11	4	23	5	25	17	19	15	24	5	55	21	41	17	74	6	86	30	...	...	...	...	...	...	...	...
40	岐阜	Gifu.	20	4	41	5	49	21	28	26	28	3	54	21	52	21	110	5	78	30	27	28	23	10	37	8	110	5VIII
41	高富	Takatomi.	33	4	34	4	44	21	22	15,26	36	15	35	20	77	15	74	5	79	21	14	22	...	...	...	...	...	...
42	上有知	Kamiuchi.	26	4	32	4	40	21	25	26	28	25	38	20	96	15	63	5	85	8	21	22	24	10	42	8	96	15VII
43	八幡	Hachiman.	20	16	35	4	107	17	29	26	53	15	118	30	89	4	146	16	71	29	23	22	38	26	53	8	146	16VIII
44	太田	Ota.	20	4	24	4	26	21	21	5	24	25	32	20	78	22	74	4	102	8	18	22	30	12	44	8	102	8IX
45	御嵩	Mitake.	18	4	23	27	34	21	22	6	22	25	36	24	65	15	66	4	95	21	10	22	36	12	35	8	95	21IX
46	中津川	Nakatsugawa.	26	4	23	4	17	3	20	15	25	25	44	24	91	1	32	17	67	8	5	23	9	13	11	23	91	1VII
47	稲澤	Inasawa.	16	4	24	4	36	21	18	6	28	4	69	20	50	1	126	5	83	29	14	22	31	12	51	8	126	5VIII
48	枇杷島	Biwajima.	15	1	19	1	30	9	20	6	25	4	54	20	89	1	127	5	110	29	8	22	38	12	38	8	127	5VIII
49	名古屋	Nagoya.	7	31	24	5	41	21	22	26	43	3	38	21	58	2	143	5	94	30	5	23	38	13	53	8	143	5VIII
50	熱田	Atsuta.	16	4	24	4	26	9	19	6	28	4	64	20	72	1	70	5	107	29	4	22	47	12	64	8	107	29IX

明治廿四年

第二表 一日中最多雨雪量 (粍)

TABLE II. GREATEST AMOUNT OF PRECIPITATION IN A DAY, 1891.

m.m.

番號 No.	地名	Locality.	一月 Jan. 量 Am.	日 Day	二月 Feb. 量 Am.	日 Day	三月 Mar. 量 Am.	日 Day	四月 Apr. 量 Am.	日 Day	五月 May 量 Am.	日 Day	六月 June 量 Am.	日 Day	七月 July 量 Am.	日 Day	八月 Aug. 量 Am.	日 Day	九月 Sept. 量 Am.	日 Day	十月 Oct. 量 Am.	日 Day	十一月 Nov. 量 Am.	日 Day	十二月 Dec. 量 Am.	日 Day	年 Year 量 Am.	月日 Date
51	勝川	Kachikawa.	10	4	20	4	28	21	18	6	26	25	42	20	124	1	109	5	108	29	8	22	39	12	53	8	124	1VII
52	豐濱	Toyohama.	12	4	11	4	25	21	28	6	23	25	98	20	68	4	29	23	114	29	8	22	42	12	41	8	114	29IX
53	半田	Handa.	9	4	15	5	21	3	13	6, 26	17	4	76	20	92	21	91	4	94	29	3	27	44	12	19	8	94	29IX
54	知立	Chiriu.	15	4	22	27	48	21	23	26	24	4	43	20	28	4	41	22	94	29	3	22	59	12	38	8	94	29IX
55	土岐津	Tokitsu.	14	4	24	27	24	21	23	6	25	25	37	20	94	1	56	5	80	29	7	22	37	12	40	8	94	1VII
56	佐久島	Sakushima.	10	4	9	5	45	21	24	26	25	25	122	24	73	4	18	23	119	29	6	22	38	12	37	8	122	24VI
57	西尾	Nishio.	15	4	15	5	23	9	24	26	27	4	87	24	74	4	34	23	140	29	4	22	48	12	34	8	140	29IX
58	岡崎	Okazaki.	15	31	15	5	20	3	24	26	24	25	78	24	89	16	48	22	112	29	4	22	38	12	25	8	112	29IX
59	擧母	Koromo.	36	4	18	27	21	21	16	26	23	4	48	24	37	4	70	22	87	29	3	22	46	12	23	8	87	29IX
60	足助	Asuke.	15	4	19	27	15	3	20	6	26	25	72	24	40	21	60	22	123	29	2	22	33	12	20	31	123	29IX
61	堀切	Horikiri.	10	4	27	4	46	9	39	6	22	4	130	24	55	4	18	5	138	29	31	22	43	12	24	8	138	29IX
62	豐橋	Toyohashi.	10	4	13	27	26	21	24	26	36	4	180	24	81	4	37	3	102	29	11	22	35	12	49	8	180	24VI
63	御油	Goyu.	12	31	13	27	73	21	29	26	38	25	128	24	79	4	20	3	112	29	8	22	27	12	43	8	128	24VI
64	新城	Shinshiro.	20	31	22	27	101	21	36	26	52	25	168	24	94	4	43	3	139	29	7	22	27	12	39	8	168	24VI
65	富岡	Tomioka.	20	31	21	27	52	21	37	26	82	15	163	24	110	4	36	3	113	21	11	22	31	12	58	8	163	24VI
66	田口	Taguchi,	30	31	36	4	32	20	81	12	54	15	127	21	190	4	92	16	173	21	4	27	24	12	56	8	190	4VII
67	濱松	Hamamatsu.	23	31	22	6	70	21	29	26	52	3	51	25	60	5	12	4	83	30	13	28	30	13	41	8	83	30IX
68	下田	Shimoda.	29	31	25	27	59	21	44	26	92	15	131	24	156	4	78	16	140	29	7	27	37	12	57	31	156	4VII
69	御前崎	Omaisaki.	13	4	90	28	54	21	41	26	73	3	119	21	23	5	14	22	89	30	15	28	18	13	15	4	119	21VI
70	沼津	Numazu.	39	31	39	5	81	21	31	26	25	16	70	25	37	23	13	22	71	20	7	28	24	13	16	8	84	21III
71	石室崎	Irosaki.	16	4	31	28	25	21	23	27	34	16	38	21	22	5	1	4,5	25	12	1	23	15	13	0	—	38	21VI
72	神子元島	Mikomotoshima.	10	4	38	5	30	4	21	27	22	16	26	4	63	6	3	22, 23	56	30	28	28	37	23	15	9	63	6VII
73	城ヶ島	Jogashima.	28	31	30	5	48	21	24	6	32	16	35	4	17	5	11	22	8	30	27	28	7	23	20	8	48	21III
74	劍崎	Tsurugisaki.	21	31	27	6	74	10	15	6	32	3	49	4	57	6	10	22	42	13	27	28	26	14	30	9	74	10III
75	觀音崎	Kanonsaki.	20	31	30	28	50	4	26	26	36	3	35	4	49	6	25	22	56	13	14	28	48	13	50	9	56	13IX
76	横須賀	Yokosuka.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
77	横濱	Yokohama.	30	31	43	5	93	10	51	6	19	3	64	4	30	29	31	22	160	13	21	28	67	13	125	9	160	13IX
78	品川	Shinagawa.	16	31	19	5	29	1	11	16	3	28	65	5	26	29	21	23	139	13	19	28	45	13	37	9	139	13IX
79	東京	Tokio.	20	31	25	5	87	10	44	6	25	25	69	4	22	6, 28	28	23	109	13	11	28	60	13	27	9	109	13IX
80	野島崎	Noshimasaki.	2	31	4	5	7	10	2	6	1	3	3	4	15	6	2	22	0	—	1	28	5	13	2	9	15	6VII
81	鎌足	Kamatari.	17	5	35	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
82	足利	Ashikaga.	...	...	...	...	...	...	...	...	...	...	64	21	70	25	7	22	64	21	35	27	43	13	9	8	...	...
83	佐野	Sano.	...	...	...	...	...	...	...	...	...	...	70	21	24	5	35	24	...	...	11	28	40	13	17	8	...	...
84	栃木	Tochigi.	...	...	...	...	...	...	...	...	...	...	92	21	42	1	34	7	...	...	19	27	45	13	11	8	...	...
85	鹿沼	Kanuma.	...	...	...	...	...	...	...	...	...	...	72	22	69	16	43	22	66	29	28	27	34	13	22	8	...	...
86	宇都宮	Utsunomiya.	13	31	25	5	48	10	25	6	12	25	49	21	73	16	49	22	59	30	24	28	44	13	18	8	73	16VII
87	眞岡	Maoka.	...	...	...	...	...	...	...	...	...	...	44	22	38	25	20	22	83	29	14	27	39	13	31	8	...	...
88	眞岡	Maoka.	15	31	23	5	50	10	...	...	...	...	30	21	50	25	25	23	56	22	22	27	61	13	48	8	...	...
89	銚子	Choshi.	20	4	20	27	118	10	64	6	19	3	21	4	35	6	8	22	44	13	69	28	46	23	29	9	118	10III
90	犬吠崎	Inuboyesaki.	9	4	27	28	70	10	110	6	7	16	25	17	14	8	97	23	33	13	47	28	44	23	45	9	110	6IV
91	那覇	Naha.	15	31	50	4	52	25	352	11	87	22	31	10	73	4	150	1	61	21	9	13	43	10	25	1	352	11IV
		第三區 東海 III. EASTERN SEA.																										
1	矢板	Yaita.	...	...	...	...	...	...	...	...	...	...	66	21	39	23	76	22	68	29	24	28	32	13	23	9	...	...
2	太田原	Otawara.	...	...	...	...	...	...	...	...	...	...	56	21	42	4	89	22	46	29	20	27	28	13	28	8	...	...
3	平	Taira.	...	...	...	...	...	...	...	...	...	...	87	4	34	19	37	18	113	29	46	27	44	13	94	8	...	...
4	富岡	Tomioka.	...	...	...	...	...	...	...	...	...	...	194	5	43	19	37	18	145	29	27	27	42	13	56	8	...	...
5	中村	Nakamura.	...	...	...	...	...	...	...	...	...	...	256	5	19	7	26	21	82	29	3	27	18	10	2	8	...	...
6	白河	Shirakawa.	...	...	...	...	...	...	...	...	...	...	57	21	62	4	44	24	71	29	26	27	28	13	31	9	...	...
7	棚倉	Tanakura.	...	...	...	...	...	...	...	...	...	...	81	19	74	1	38	14	80	29	25	27	25	13	45	9	...	...
8	石川	Ishikawa.	...	...	...	...	...	...	...	...	...	...	52	5	34	20	55	14	17	29	53	27	35	13	44	8	...	...
9	須賀川	Sukagawa.	...	...	...	...	...	...	...	...	...	...	54	21	50	4	25	21	59	29	27	27	36	13	33	8	...	...
10	郡山	Koriyama.	...	...	...	...	...	...	...	...	...	...	38	5	30	20	41	23	80	30	30	27	21	23	33	8	...	...
11	三春	Miharu.	...	...	...	...	...	...	...	...	...	...	53	5	35	20	16	22	53	30	27	27	26	13	37	8	...	...
12	二本松	Nihonmatsu.	...	...	...	...	...	...	...	...	...	...	56	5	40	19	26	21	93	30	31	27	25	10	30	8	...	...
13	福島	Fukushima.	37	31	27	5	33	10	17	6	10	16	63	5	40	20	29	18	152	30	33	28	17	13	17	8	152	30IX
14	桑折	Kori.	...	...	...	...	...	...	...	...	...	...	55	5	23	15	26	21	106	30	18	27	24	10	31	8	...	...
15	角田	Kakuda.	21	31	26	5	71	10	27	6	7	8	119	5	17	23	30	21	83	30	48	27	21	10	22	8	119	5VI
16	大河原	Okawara.	31	30	33	5	53	10	24	6	11	7	68	5	28	20	35	22	49	29	26	27	25	10	26	8	68	5VI
17	長町	Nagamachi.	13	31	23	5	35	11	25	6	8	16	63	5	15	19	19	10	138	30	12	27	23	10	25	8	138	30IX
18	仙臺	Sendai.	29	31	26	5	38	10	23	6	8	16	70	5	23	19	26	21	132	30	24	27	25	10	25	8	132	30IX
19	原ノ町	Haranomachi.	7	31	24	5	36	10	26	6	8	16	59	5	16	19	27	21	134	30	23	27	24	10	26	8	134	30IX
20	吉岡	Yoshioka.	11	25	31	5	46	10	26	6	9	15	47	4	24	23	28	10	126	30	23	27	24	10	33	8	126	30IX
21	野蒜	Nobiru.	11	31	28	5	53	14	29	6	11	8	37	4	17	23	32	19	131	30	18	27	38	10	31	8	131	30IX
22	石ノ巻	Ishinomaki.	12	31	35	1	31	15	14	6	12	16	32	5	18	20	17	17	114	30	27	28	21	11	20	8	114	30IX
23	金華山	Kinkwasan.	1	31	41	6	62	15	3	6	2	16	15	22	3	8	10	17	115	30	42	28	32	10	46	9	115	30IX
24	古川	Furukawa.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	116	30	...	...	...	...	...	...	...	...
25	相ノ谷	Ainoya.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	80	30	...	...	...	...	...	...	...	...
26	築館	Tsukidate.	23	30	17	4	40	11	19	6	24	15	28	4	29	15	30	10	75	30	14	27	22	10	26	8	75	30IX
27	佐沼	Sanuma.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	107	30	...	...	...	...	...	...	...	...

明治廿四年 第二表 一日中最多雨雪量 (粍)

TABLE II. GREATEST AMOUNT OF PRECIPITATION IN A DAY, 1891.

m.m.

番號 No.	地名	Locality.	一月 Jan. 量 Am.	日 Day	二月 Feb. 量 Am.	日 Day	三月 Mar. 量 Am.	日 Day	四月 Apr. 量 Am.	日 Day	五月 May 量 Am.	日 Day	六月 June 量 Am.	日 Day	七月 July 量 Am.	日 Day	八月 Aug. 量 Am.	日 Day	九月 Sept. 量 Am.	日 Day	十月 Oct. 量 Am.	日 Day	十一月 Nov. 量 Am.	日 Day	十二月 Dec. 量 Am.	日 Day	年 Year 量 Am.	月日 Date.
28	志津川	Shizukawa.	18	31	30	5	52	14	38	6	12	15	35	21	13	15	48	10	62	30	27	27	26	10	49	8	62	30IX
29	宮古	Miyako.	15	31	42	6	53	15	25	7	7	27	92	6	31	5	28	17, 22	94	30	30	28	25	11	43	8	94	30IX
30	八戸	Hachinohe.	10	20	34	5	37	9	10	6	9	11	40	6	22	10	14	26	40	21	24	1	16	10	31	4	40	{6VI 21IX}
31	七戸	Shichinohe.	5	10	9	5	5	10	2	6	0	—	4	6	3	2	4	11	6	21	2	1	3	10	7	3	9	5II
32	釧路	Kushiro.	...	...	...		...	...	...	...	...	...	...	...	...	...	...	...	3	30	1	29	2	5	4	9	...	...
33	釧路	Kushiro.	3	1	3	11	25	29	13	16	39	16	24	7	31	5	35	29	33	30	9	29	25	5	40	9	40	9XII
34	厚岸	Akkeshi.	1	23	1	10	69	29	9	16	18	16	71	7	49	19	50	19	37	30	31	23	12	11	29	4	71	7VI
35	落石崎	Otchishi-aki.	36	23	42	10	96	11	24	7	54	16	103	7	51	19	25	17	57	30	33	23	24	11	95	9	103	7VI
36	納沙布崎	Noshiafsaki.	15	26	7	10	1	11	2	26	3	16	3	7	21	19	16	19	28	30	25	23	14	5	25	9	28	30IX
37	根室	Nemuro.	8	9	4	10	32	29	11	5	37	16	43	7	32	19	26	19	43	30	23	23	15	5	30	9	43	{7VII 30IX}
38	辨天島	Bentenshima.	3	9, 24	7	10	4	11, 26	3	27	5	28	47	7	20	11	20	18	15	25	5	16	12	21	5	9	47	7VI
		第四區 內海 IV. INLAND SEA.																										
		甲 南岸 a S. Coast.																										
1	部崎	Hesaki.	2	4	7	11	38	21	33	11	12	4	83	30	154	22	96	21	62	8	8	27	24	10	34	8	154	22VII
2	大分	Oita.	11	4	41	4	23	4, 21	20	29	14	25	61	15	51	22	45	22	73	13	38	27	10	10	27	8	73	13IX
3	宇和	Uwa.	...	...	...	...	...	...	53	11	92	24	76	15	43	14	47	2	88	13	17	27	18	10	16	3	...	...
4	八幡濱	Yawatahama.	...	...	...	...	...	...	47	11	30	24	62	15	73	21	56	2	87	8	15	27	7	4	13	3	...	...
5	大洲	Ozu.	...	...	...	...	...	...	35	11	28	24	72	15	89	21	32	16	83	13	16	17	13	10	25	3	...	...
6	久万町	Kumamachi.	...	...	...	...	9	3	24	29	38	24	46	15	112	21	124	16	170	13	11	27	12	16	52	3	...	...
7	郡中	Gunchu.	...	...	...	...	...	...	23	29	16	4	17	24	65	21	23	2	74	8	13	18	7	9	14	8	...	...
8	松山	Matsuyama.	14	4	11	4	11	17	17	29	24	25	53	16	43	13	44	16	53	8	16	27	11	10	20	3	53	{16VI 8IX}
9	三津濱	Mitsuhama.	...	...	...	...	...	...	21	29	7	15	18	21	70	21	52	22	40	13	14	27	7	9	12	3	...	...
10	釣島	Tsurishima.	14	4	27	4	11	21	13	6	22	25	65	16	69	22	54	23	49	8	16	27	9	10	80	8	80	8XII
11	今治	Imabari.	...	...	...	...	...	...	...	...	15	24	30	15	39	21	65	22	29	8	16	8	18	9	9	3	...	...
12	西條	Saijo.	...	...	...	...	...	...	24	29	10	21	32	15	22	12	69	2	33	20	18	27	17	16	6	8	...	...
13	川ノ江	Kawanoi.	...	...	...	...	...	...	16	29	11	24	33	15	36	21	62	16	73	13	38	18	19	16	10	8	...	...
14	鍋島	Nabeshima.	1	31	2	6	1	10	2	26	2	25	2	30	3	22	6	16	3	13, 18	1	28	1	10, 17	0	—	6	16VIII
15	德島	Tokushima.	...	...	...	...	...	...	...	...	...	...	...	...	41	11	471	2	49	30	8	14	5	10	11	8	...	...
		乙 北岸 b N. Coast.																										
1	上保木	Kamiboki.	15	30	38	4	52	20	19	15	21	24	70	2	98	19	110	20	73	13	6	27	31	9	24	3	110	20VIII
2	殿敷	Tonoshiki.	...	...	...	...	57	20	22	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	西須惠	Nishisui.	14	30	31	4	43	20	27	5	20	4	119	29	195	21	65	20	35	12	8	27	30	9	33	7	195	21VII
4	船木	Funaki.	15	30	31	4	45	20	28	5	25	4	101	2	192	21	...	...	82	13	...	...	31	9	...	...	...	...
5	伊佐	Isa.	...	...	...	...	48	16	22	5	18	4	93	2	107	21	78	20	46	13	9	27	41	9	21	7	...	...
6	大田	Ota.	13	30	33	4	55	16	22	25	16	4	75	15	107	21	63	20	65	13	11	27	48	9	20	7	107	21VII
7	山口	Yamaguchi.	10	4	29	4	45	21	37	26	28	15	79	3	128	20	174	21	98	14	25	27	51	10	36	8	174	21VIII
8	御堀	Mihori.	12	30	37	4	45	20	37	5	25	15	84	15	139	21	98	20	...	...	18	27	46	9	32	7	...	...
9	三田尻	Mitajiri.	9	30	30	4	28	16	24	5	31	4	90	29	142	21	61	22	39	13	18	27	45	9	46	7	142	21VII
10	堀	Hori.	...	...	...	...	62	16	24	25	35	2	71	15	149	21	77	20	73	13	27	27	47	9	41	7	...	...
11	德山	Tokuyama.	14	30	30	4	15	20	34	11	45	2	76	15	127	21	69	22	38	13	29	27	59	9	26	7	127	21VII
12	室積	Murotsumi.	12	30	22	4	22	20	22	25	32	4	50	15	134	21	63	21	34	7	37	27	50	9	25	30	134	21VII
13	柳井	Yanai.	17	30	...	...	22	20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	東屋代	Higashiyashiro.	18	30	21	4	20	20	29	11	33	24	97	15	103	21	60	22	52	8	35	27	22	9	28	8	103	2VII
15	伊保田	Ihota.	15	4	22	4	15	20	33	11	24	4	29	3	81	21	39	20	30	8	17	27	14	9	13	7	81	21VII
16	下久原	Shimokubara.	...	...	37	4	42	20	41	11	35	24	72	30	118	21	58	21	66	13	6	27	45	9	31	8	...	...
17	須々万本郷	Susumahongo.	...	...	40	4	59	16	33	11	65	4	64	15	151	17	53	20	60	14	35	27	56	9	29	8	...	...
18	横山	Yokoyama.	9	4	32	4	31	16	31	11	27	15	56	15	197	21	33	20	64	13	21	27	42	9	32	30	197	21VII
19	鹿野上	Kanokami.	35	30	38	4	45	16	27	25	52	2	54	15	137	21	81	20	114	13	25	27	48	9	65	30	137	21VII
20	本郷	Hongo.	14	30	33	4	39	16	23	11	44	4	66	15	124	21	127	20	178	13	15	27	53	9	47	8	178	13IX
21	二十日市	Hatsukaichi.	11	30	43	5	24	20	30	11	28	15	36	29	128	21	65	20	52	7	5	18	38	9	34	30	128	21VII
22	廣島	Hiroshima.	11	4	24	4	22	17	30	11	27	15	48	30	72	21	80	21	52	14	16	27	26	10	37	31	80	21VIII
23	吉浦	Yoshiura.	14	4	29	4	20	20	29	10	21	4	55	15	63	21	64	22	59	20	26	20	16	9	11	8	64	22VIII
24	可部	Kabe.	22	1	31	4	22	3	23	11	27	24	56	29	82	21	79	20	33	8	13	27	21	9	28	30	82	21VII
25	西條	Saijo.	26	4	22	4	21	3	17	5	22	15	39	20	78	21	26	21	40	8	16	27	12	9	13	30	78	21VII
26	忠海	Tadanomi.	9	3	18	4	13	3, 20	22	5	15	4	28	15	53	21	31	22	33	8	8	27	26	4	8	3	53	21VII
27	尾道	Onomichi.	19	30	13	5	9	20	30	5	7	15	31	20	24	1	30	22	26	8	13	27	13	9	10	7	31	20VI
28	府中市	Fuchuichi.	18	4	15	4	25	21	13	25	14	4	51	3	28	21	28	2	28	8	10	27	14	9	14	3	51	3VI
29	福山	Fukuyama.	15	4	12	4, 5	19	3	20	5	10	15	42	3	27	1	29	17	16	8	14	27	10	4	7	8	42	3VI
30	高梁	Takabashi.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	27	11	9	11	8	...	...
31	岡山	Okayama.	12	4	9	27	15	4	20	6	19	15	79	3	15	14	59	16	26	18	3	27	16	10	10	8	79	3VI
32	久世	Kuse.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17	27	8	8	...	...
33	津山	Tsuyama.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16	13	8	27	11	27	13	8	...	...
34	江崎	Yesaki.	23	4	18	27	17	17	20	26	25	15	57	3	22	2	130	16	97	21	7	23	22	10	15	31	130	16VIII
35	和田岬	Wadanomisaki	4	31	7	6	13	21	12	12	25	15	45	24	11	23	32	4	9	21	0	—	1	10	3	31	45	24VI
36	神戸	Kobe.	20	4	18	27	23	21	17	15	28	25	28	24	19	2	76	16	74	21	2	23	14	10	27	8	76	16VIII
37	本西島	Hontorishima.	...	...	...	...	19	9	42	23	12	25	36	26	30	4	41	16	45	21	3	22	12	10	23	8	...	...
38	天保山	Temposan.	6	4	4	27	10	21	16	26	6	25	19	24	8	2	9	2	19	21	0	—	6	10	9	8	19	21IX
39	大阪	Osaka.	16	31	14	27	25	21	42	26	23	25	57	20	38	4	32	16	38	21	3	23	17	10	22	8	57	20VI
40	天王寺	Tennoji.	23	3	16	5	24	20	27	25	18	25	61	24	17	21	32	16	45	29	3	27	16	10	25	8	61	24VI

明治廿四年
第二表　一日中最多雨雪量 (粍)
TABLE II. GREATEST AMOUNT OF PRECIPITATION IN A DAY, 1891.

m.m.

番號 No.	地名	Locality.	一月 Jan.		二月 Feb.		三月 Mar.		四月 Apr.		五月 May		六月 June		七月 July		八月 Aug.		九月 Sept.		十月 Oct.		十一月 Nov.		十二月 Dec.		年 Year	
			量 Am.	日 Day	量 Am.	日 Day	量 Am.	日 Day	量 Am.	日 Day	量 Am.	日 Day	量 Am.	日 Day	量 Am.	日 Day	量 Am.	日 Day	量 Am.	日 Day	量 Am.	日 Day	量 Am.	日 Day	量 Am.	日 Day	量 Am.	月日 Date
41	大信寺	Daishinji.	11	8	19	5	17	21	19	26	17	25	76	20	38	4	40	22	44	29	2	26	16	10	32	3	76	20VI
42	池田	Ikeda.	13	4	13	5	26	20	31	25	22	25	58	20	41	21	79	16	46	29	3	27	18	10	22	8	79	16VIII
43	茨木	Ibaraki.	22	3	13	5	28	20	22	25	17	25	71	20	37	4	32	6	42	29	2	22	18	10	19	8	71	20VI
44	枚方	Hirakata.	12	30	14	5	24	20	33	25	21	25	49	24	29	21	33	16	40	29	13	22	21	10	24	30	49	24VI
45	園部	Sonobe.	...	...	...	...	...	...	...	...	...	...	...	...	37	26	83	16	55	29	5	22	11	10	21	8	...	...
46	龜岡	Kameoka.	...	...	...	...	...	...	...	...	...	...	...	...	28	26	109	16	59	29	6	22	18	10	17	8	...	...
47	向日	Muko.	...	...	...	...	...	...	...	...	...	...	...	...	28	4	60	16	59	29	12	27	22	10	22	31	...	...
48	伏見	Fushimi.	...	...	...	...	...	...	...	...	...	...	...	...	30	4	38	16	49	29	4	27	23	10	26	31	...	...
49	淀	Yodo.	..	...	...	...	...	...	...	...	...	...	...	...	52	29	42	16	49	29	10	27	23	10	29	31	...	...
50	田邊	Tanabe.	...	...	...	...	...	...	...	...	...	...	...	...	37	4	41	16	52	29	9	27	25	10	22	31	...	...
51	木津	Kizu.	...	...	...	...	...	...	...	...	...	...	...	...	35	16	39	16	41	29	1	27	17	12	18	3	...	...
52	周山	Shuzan.	...	...	...	...	...	...	...	...	...	..	...	...	86	19	72	16	62	29	9	27	29	27	17	8	...	...
53	太秦	Uzumasa.	...	...	...	...	...	...	...	...	...	...	...	...	29	28	59	21	58	29	5	27	20	10	21	8	...	...
54	京都	Kioto.	18	4	14	5	52	21	39	26	21	25	48	3	33	26	81	21	43	30	5	23	20	10	19	8	81	21VIII
55	田中	Tanaka.	...	...	...	...	...	...	...	...	...	...	...	...	36	26	60	21	54	8	7	27	20	10	19	8	...	...
56	醍醐	Daigo.	...	...	...	...	...	...	...	...	...	...	...	..	35	4	43	22	60	29	2	27	22	10	27	31	...	...
57	名張	Nabari.	...	...	12	6	17	3	26	26	38	25	58	24	20	4	48	23	97	29	7	27	18	12	13	8	...	...
58	上野	Uino.	10	4	12	27	19	3	23	26	24	4	70	20	42	16	69	22	80	29	4	27	21	12	50	20	80	29IX
59	堺	Sakai.	15	4	20	5	18	9	21	26	16	25	69	24	43	4	35	16	48	29	3	18	15	10	39	3	69	24VI
60	長承寺	Choshoji.	13	30	24	5	22	20	19	26	14	25	77	24	39	1	54	22	41	29	3	27	13	10	29	3	77	24VI
61	富田林	Tondabayashi.	10	20	21	5	20	9	24	26	26	4	62	24	28	1	37	16	38	29	2	27	12	12	25	3	62	4VI
62	岸和田	Kishiwada.	13	30	23	5	18	3	18	25	19	4	86	24	31	4	43	16	55	29	7	20	12	10	25	3	86	24VI
63	苫ヶ島	Tomagashima.	22	4	10	5	27	21	20	6	18	4	60	24	28	2, 21	102	2	93	8	5	14	14	10	48	8	102	16VIII
64	和歌山	Wakayama.	17	4	11	6	27	21	40	26	28	25	49	24	37	2	83	16	71	21	3	14	13	10	35	8	83	8IX
65	秋月	Akizuki.	20	4	8	27	15	3	31	26	28	25	49	24	42	21	52	16	71	8	4	13	11	10	34	3	71	...
66	淸水	Shimizu.	...	..	9	20	20	10	30	25	37	25	55	24	53	31	82	16	58	21	4	13	14	10	28	3	...	...
67	古佐田	Kosada.	23	4	20	27	33	9	26	13	45	25	83	24	...	...	33	2	38	29	6	13	10	10	25	3	...	24VI
68	高野山	Koyasan.	12	24, 30	18	27	17	3, 21	32	26	42	25	135	24	32	21	110	16	135	29	5	13	25	12	47	3	135	29IX
		第五區　日本海　V. SEA OF JAPAN.																										
1	烏帽子島	Yeboshishima.	8	22, 31	8	4	7	16	30	11	13	25	88	29	293	22	32	20	51	26	6	27	50	10	20	31	293	22VII
2	福岡	Fukuoka.	9	4	19	4	29	21	17	15	17	4	48	15	209	21	79	21	95	14	29	27	28	10	15	3	209	21VII
3	白洲	Shirasu.	15	4	20	4	46	20	36	11	18	4	131	15	188	21	118	21	135	14	15	27	18	10	45	8	188	21VII
4	六連島	Mutsureshima.	43	4	24	11	14	21	16	11	16	4	170	30	95	22	58	21	72	14	9	27	31	10	22	3	170	30VI
5	赤間關	Akamagaseki.	9	4	22	4	27	21	25	11	16	4	82	30	135	22	88	21	56	14	11	27	22	10	24	8	135	22VII
6	小串	Kokushi.	13	21	27	4	44	20	25	15	18	4	70	29	108	19	84	20	61	14	5	7	24	9	15	7	108	19VII
7	嚴原	Itsugahara.	29	30	23	4	47	21	58	11	100	15	172	29	230	3	123	3	171	14	12	7	30	10	39	31	230	3VII
8	角島	Tsunoshima.	28	15	32	5	50	21	31	15	11	4	79	3	108	21	61	21	90	14	4	8	29	10	15	31	108	21VII
9	神田下	Kandashimo.	15	21	30	4	30	20	21	15	15	24	111	29	139	20	91	20	141	13	5	29	21	9	17	30	141	13IX
10	向津具	Mukatsuku.	19	21	36	4	...	...	...	...	...	...	...	...	144	20	64	20	118	13	...	...	...	...	12	30	...	...
11	深川	Fukagawa.	19	30	35	4	51	20	26	5	14	4	66	2	104	19	77	20	89	13	7	29	32	9	21	3	104	19VII
12	佐々並	Sasanami.	15	30	40	4	70	16	39	5	52	15	66	14	86	21	48	20	122	14	10	27	48	9	40	7	122	14IX
13	生雲中	Ikumonaka.	11	30	30	4	29	20	27	5	22	2	58	15	99	21	79	20	151	14	12	27	34	9	24	7	151	14IX
14	德佐中	Tokusanaka.	35	30	33	4	32	20	25	5	25	4	...	...	103	21	70	20	101	14	12	27	...	...	...	...	...	...
15	萩	Hagi.	12	30	30	4	41	20	29	5	9	4	51	15	114	12	72	20	77	13	18	7	44	9	18	3	114	12VII
16	須佐	Susa.	15	30	28	4	34	20	32	5	13	4	54	29	105	20	68	20	44	14	17	7	32	16	18	3	105	20VII
17	津和野	Tsuwano.	...	...	...	...	...	...	...	...	...	...	37	15	41	12	34	21	80	13	15	27	27	9	15	3	...	...
18	益田	Masuta.	...	...	...	...	...	...	20	6	10	4	47	29	90	20	74	16	43	29	20	27	27	9	33	23	...	...
19	濱田	Hamada.	...	...	...	...	...	...	...	...	16	24	57	29	100	20	55	16	43	1	16	17	33	16	28	23	...	...
20	吉田	Yoshida.	15	17	28	4	21	20	19	5	20	15	38	15	76	21	53	21	132	29	13	27	14	9	13	7	132	29IX
21	三次	Miyoshi.	18	1	18	5	16	20	25	11	27	25	70	19	63	19	44	20	76	29	13	26	20	26	13	3	76	29IX
22	庄原	Shohara.	5	3, 30	13	4	1	10	15	5	14	3	48	19	54	20	51	20	25	13	1	26	18	9	28	2	54	20VII
23	川本	Kawamoto.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	14	9	20	3	...	...
24	大森	Omori.	...	...	...	...	...	...	...	..	...	...	62	29	106	20	38	20	112	1	28	28	21	10	26	3	...	...
25	掛合	Kakeya.	...	...	...	...	...	...	...	...	19	24	38	29	104	19	112	21	35	14	20	29	55	29	30	3	...	...
26	今市	Imaichi.	...	...	...	...	...	...	...	...	...	...	49	29	67	12	66	20	42	10	8	29	19	4, 29	17	3	...	...
27	廣瀬	Hirose.	...	...	...	...	...	...	...	...	...	...	30	29	80	20	67	2	76	29	17	29	18	24	25	3	...	...
28	米子	Yonago.	...	...	...	...	...	...	24	6	31	5	33	30	61	21	46	21	53	30	32	1	20	28	10	4	...	...
29	境	Sakai.	33	31	22	5	34	21	25	26	22	15	59	3	64	21	96	21	37	26	4	29	58	24	22	24	96	21VIII
30	二部宿	Nibujuku.	...	...	...	...	...	...	22	6	11	25	27	4	45	21	45	21	36	30	9	24	28	27	8	21	...	...
31	倉吉	Kurayoshi.	...	...	...	...	...	...	29	16	11	9	32	4	53	13	42	21	33	30	26	1	21	17	23	24	...	...
32	郡家	Koge.	...	...	...	...	...	...	20	5	7	25	48	19	59	19	31	21	19	29	17	23	23	10	23	23	...	...
33	吉岡	Yoshioka.	...	...	...	...	...	...	26	5	11	8	45	19	36	20	35	20	44	21	15	23	38	24	37	23	...	...
34	鳥取	Tottori.	...	...	...	...	...	...	21	6	10	25	28	20	35	20	48	21	25	2	30	1	35	25	36	24	...	...
35	久美濱	Kumihama.	...	...	...	...	...	...	...	...	...	...	...	...	44	12	35	20	33	29	14	29	70	24	48	4	...	...
36	網野	Amino.	...	..	...	...	...	..	...	...	...	...	...	...	...	...	37	16	45	26	12	18	40	21	38	5	...	...
37	峯山	Mineyama.	...	...	...	...	...	...	...	...	...	...	...	...	37	19	46	16	50	29	16	29	45	24	39	23	...	...
38	宮津	Miyatsu.	...	...	...	...	...	...	...	...	...	...	...	...	45	19	55	16	61	29	11	22	24	26	29	23	...	...
39	福知山	Fukuchiyama.	...	...	...	...	...	...	...	...	...	...	...	...	70	19	61	22	57	29	5	22	16	27	9	8	...	...
40	綾部	Ayabe.	...	...	...	...	...	...	...	...	...	...	...	...	58	19	64	16	38	29	3	29	14	27	10	31	...	...

明治廿四年
第二表 一日中最多雨雪量 (粍)
TABLE II. GREATEST AMOUNT OF PRECIPITATION IN A DAY, 1891.

m.m.

番號 No.	地名	Locality.	一月 Jan. 量 Am.	日 Day	二月 Feb. 量 Am.	日 Day	三月 Mar. 量 Am.	日 Day	四月 Apr. 量 Am.	日 Day	五月 May 量 Am.	日 Day	六月 June 量 Am.	日 Day	七月 July 量 Am.	日 Day	八月 Aug. 量 Am.	日 Day	九月 Sept. 量 Am.	日 Day	十月 Oct. 量 Am.	日 Day	十一月 Nov. 量 Am.	日 Day	十二月 Dec. 量 Am.	日 Day	年 Year 量 Am.	月日 Date.
41	舞鶴	Maitsuru.	...	...	...	...	...	...	...	...	...	...	...	...	68	12	55	16	62	29	16	23	32	24	15	23	...	...
42	立石岬	Tateishinohana.	122	16	21	10	33	12	28	26	23	4	54	21	45	20	65	17	60	30	40	23	47	26	60	6	122	16I
43	金澤	Kanazawa.	54	16	19	5	27	10	41	6	23	25	20	3	53	20	76	21	55	30	48	23	30	25	40	4	76	21VIII
44	祿剛崎	Rokkosaki.	50	16	39	5	22	17	29	26	12	8	53	16	44	19	35	17	32	8	14	23	47	25	44	16	53	16VI
45	伏木	Fushiki.	49	14	17	5	24	10	29	26	21	25	30	30	54	20	74	21	95	18	24	23	30	25	34	4	95	18IX
46	高山	Takayama.	8	5	18	5	33	22	16	24	49	25	34	30	47	21	44	16	39	29	24	22	19	11	24	8	49	25V
47	糸魚川	Itoigawa.	...	...	...	...	18	1	30	6	13	27	21	21,24	80	20	46	21	54	22	45	20	68	24	44	8	...	...
48	高城	Takagi.	...	...	...	...	16	17	30	6	10	27	22	21	144	19	30	22	44	23	228	1	...	...	85	5	...	...
49	柏崎	Kashiwasaki.	26	22	15	10	19	12	25	6	15	25	28	6	92	19	50	21	52	29	30	1	35	25	46	10	92	19VII
50	相川	Aikawa.	37	2	23	3	58	10	24	6	22	25	29	4	59	19	54	12	16	29	18	18	15	19	17	9	59	19VII
51	長野	Nagano.	13	31	14	6	22	10	15	6	24	25	23	21	69	20	14	22	57	30	2	23	28	13	15	5	69	20VII
52	十日町	Tokamachi.	...	...	...	...	27	10	39	6	17	25	41	21	55	19	39	29	21	29	15	29	35	18	...	...	...	...
53	六日町	Muikamachi.	...	...	29	6	20	10,14	30	6	18	11	37	21	52	20	38	23	31	9	109	1	32	26	...	...	...	...
54	小千谷	Ojiya.	...	...	...	...	24	14	34	6	15	25	34	16	96	19	32	6	81	29	22	29	42	6	...	...	...	...
55	三條	Sanjo.	55	13	16	6	16	22	19	6	22	25	23	21	43	28	32	21	37	29	57	1	48	5	51	9	57	1X
56	新津	Niitsu.	22	21	19	6	20	21	35	6	21	25	33	21	60	19	35	17	47	9	85	1	38	5	26	9	85	1X
57	新潟	Niigata.	39	1	18	6	25	11	27	6	16	11	20	30	79	20	69	13	86	18	25	19	23	26	11	16	86	18IX
58	新潟	Niigata.	45	3	26	6	20	10	25	6	27	11	15	6	82	20	77	13	70	30	15	19	46	21	13	9	82	20VII
59	田島	Tajima.	...	...	...	...	...	...	...	...	...	...	37	16	73	20	27	24	65	30	18	27	36	13	15	4	...	...
60	高田	Takata.	...	...	...	...	...	...	...	...	...	...	39	5	51	19	15	22	63	30	11	27	29	13	20	13	...	...
61	若松	Wakamatsu.	...	...	...	...	...	...	...	...	...	...	34	5	46	19	37	18	48	30	16	27	30	13	17	13	...	...
62	猪苗代	Inawashiro.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	40	30	11	27	...	...	...	...	...	...
63	坂下	Bange.	...	...	...	...	...	...	...	...	...	...	31	16	47	19	19	2	61	30	11	26	29	13	23	17	...	...
64	喜多方	Kitakata.	...	...	...	...	...	...	...	...	...	...	29	21	49	19	18	18	29	30	14	26	21	29	16	17	...	...
65	津川	Tsugawa.	...	...	...	...	...	...	23	27	11	8,27	23	16	24	23	20	17	25	29	25	1	...	...	24	16	...	...
66	村上	Murakami.	23	13	21	16	34	10	42	6	33	11	31	5	42	18,23	70	12	31	29	45	1	27	27	31	10	70	12VIII
67	山形	Yamagata.	17	31	13	6	21	14	18	6	24	16	30	6	39	20	41	13	87	30	25	28	9	10	11	9	87	30IX
68	本莊	Honjo.	29	8	18	5	20	17	30	5	...	...	...	...	...	...	...	...	95	6	27	29	37	30	37	1	...	...
69	湯澤	Yuzawa.	...	...	...	...	16	12	38	7	6	13	36	6	24	18	59	10	51	30	13	24	24	19	27	4	...	...
70	橫手	Yokote.	18	23	11	6	12	12	45	7	11	25	9	30	62	24	45	19	40	29	19	20	52	12	25	9	62	24VII
71	大曲	Omagari.	15	8	18	9	17	17	19	6	13	8	23	6	40	10	39	17	38	30	14	15	41	5	7	20	41	5XI
72	秋田	Akita.	16	8	13	6	17	11	25	24	31	25	21	6	59	11	35	10	49	28	64	23	31	5	36	4	64	23X
73	船川	Funakawa.	15	3	11	1,5	19	17	25	5	16	25	17	25	96	13	30	11	38	24	28	23	22	30	43	5	96	13VII
74	能代	Noshiro.	14	15	12	6	21	17	20	5	19	15	9	24	71	10	31	2	41	21	26	18	20	10	35	3	71	10VII
75	鷹巣	Takanosu.	60	14	23	5	25	11	19	23	23	8	29	30	61	10	31	11	37	1	31	21	25	9	42	4	61	10VII
76	花輪	Hanawa.	17	4	17	6	22	11	15	23	15	10	14	30	17	4	15	17	39	21	17	31	25	5	20	31	39	21IX
77	鰺ケ澤	Ajigasawa.	32	10	21	8	19	10	20	8	0	—	0	—	24	3	26	1	52	27	27	24	15	17	10	29	52	27IX
78	鷗島	Kamomeshima.	49	10	4	10	11	23	45	24	20	28	17	30	60	18	56	10	105	4	25	8	24	5	12	22	105	4IX
79	稻穗崎	Inahosaki.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	31	...	...
80	辨慶崎	Benkeisaki.	3	11	8	10	5	31	4	16	9	25	2	23	4	18	49	10	60	24	60	2	17	19	28	8	60	24IX 2X
81	壽都	Suttsu.	13	1	37	16	11	18,31	29	24	17	25	6	25	33	18	32	10	21	5	38	2	29	5	15	31	38	2X
82	神威岬	Kamoisaki.	83	25	65	19	16	18	54	21	26	25	0	—	47	18	25	10	9	15	32	8	21	27	10	6,20	83	25I
83	日和山	Hiyoriyama.	53	20	32	16	11	31	19	24	15	25	7	23	42	28	18	10	9	25	49	21	10	16	11	5	53	20I
84	札幌	Sapporo.	12	23	12	3	16	13	11	24	5	22	3	11	41	18	34	2	15	25	25	23,24	19	15	17	17	41	18VII
85	上川	Kamikawa.	10	7	6	16	14	31	25	21	21	25	16	18	39	5	61	2	23	25	45	9	14	5	12	31	61	2VIII
86	增毛	Mashike.	1	13	1	5	1	23	4	21	2	25	0	—	3	28	2	19	2	25	3	23	3	1	11	11	11	11XII
87	仁川	Jenchuan.	11	30	13	28	21	17	11	25	84	24	56	15	54	23	48	14	81	3	28	22	13	8	39	31	84	24V
88	釜山	Fusan.	50	30	8	4	33	16	23	15	29	15	65	15	126	20	28	21	67	10	2	7	7	10	16	8	126	20VII
89	元山	Yuensan.	41	31	28	6	18	17	3	5	15	24	43	30	34	18	43	15	109	3	15	7	26	16	33	4	109	3IX
90	浦潮港	Vladivostok.	1	19	—	—	13	18	8	24	29	27	53	16	28	31	47	4	11	11	—	—	11	23	17	9	53	16VI

第六區 津輕海峽 VI. TSUGARU STRAIT.

番號 No.	地名	Locality.	Jan. Am.	Day	Feb. Am.	Day	Mar. Am.	Day	Apr. Am.	Day	May Am.	Day	June Am.	Day	July Am.	Day	Aug. Am.	Day	Sept. Am.	Day	Oct. Am.	Day	Nov. Am.	Day	Dec. Am.	Day	Year Am.	Date.
1	富山	Tomita.	3	5	10	17	5	10	6	25	4	5	4	13	3	1	2	15	33	21	17	29	30	19	6	17	33	21IX
2	黑石	Kuroishi.	30	26	0	—	8	17	14	1	15	10	9	6	25	10	26	2	60	4	...	...	25	3	12	1	...	...
3	五所川原	Goshogawara.	45	20	56	17	55	17	7	24	7	27	7	24	34	10	34	25	101	4	31	29	41	11	10	17	101	5IX
4	青森	Aomori.	19	5	26	17	30	11	21	24	13	11	9	7	46	11	52	12	55	4	19	23	23	11	28	4	55	4IX
5	田名部	Tanabu.	41	14	18	16	20	10	14	15	8	8	73	7	50	13	44	11	75	4	13	1	15	3	49	4	75	5IX
6	尻矢崎	Shiriyasaki.	8	22	21	6	15	17	37	7	27	16	28	19	42	11	43	12	53	5	20	29	45	11	50	4	53	5IX
7	福山	Fukuyama.	39	11	12	2	8	11	23	16	24	9	3	18	43	18	43	18	60	4	23	8	36	5	48	4	60	4IX
8	白神崎	Shirakamisaki.	25	10	14	9	6	1	34	24	35	28	56	7	11	14	10	15	14	13	14	23	15	25	21	5	56	7VI
9	葛登支岬	Kattoji.	23	6	35	9	40	11	18	16	19	25	42	18	66	1	40	15	60	13	22	23	41	11	23	4	66	1VII
10	函館	Hakodate.	89	14	7	14	13	17	21	24	19	25	44	18	36	11	41	15	57	4	19	8	30	11	24	8	89	14I
11	惠山岬	Yesanmisaki.	18	18	35	10	37	17	20	16	3	25	67	19	100	2	97	18	54	13	26	23	50	11	27	4	100	2VII
12	襟裳岬	Yerimomisaki.	3	18	1	9	29	4	18	16	40	9	7	17	30	27	16	18	19	12	11	15	10	11	39	9	40	9V

第七區 阿哥斯克海 VII. OKHOTSK SEA.

番號 No.	地名	Locality.	Jan. Am.	Day	Feb. Am.	Day	Mar. Am.	Day	Apr. Am.	Day	May Am.	Day	June Am.	Day	July Am.	Day	Aug. Am.	Day	Sept. Am.	Day	Oct. Am.	Day	Nov. Am.	Day	Dec. Am.	Day	Year Am.	Date.
1	宗谷岬	Soyamisaki.	1	26	1	9	1	6	12	24	7	29	2	28	7	18	4	18	46	30	48	23	23	9	17	20	48	23X
2	網走	Abashiri.	9	7	2	10	43	29	4	12	13	25	42	7	32	19	24	29	16	14	33	8	12	5	6	14	43	29III

第三表 明治廿四年雨天日數
TABLE III. NUMBER OF RAINY DAYS IN 1891.

番號 No.	地名	Locality.	一月 Jan.	二月 Feb.	三月 Mar.	四月 Apr.	五月 May	六月 June	七月 July	八月 Aug.	九月 Sept.	十月 Oct.	十一月 Nov.	十二月 Dec.	年 Year
		第一區 西海 I. WESTERN SEA.													
1	大瀬崎	Osesaki.	18	11	7	10	6	5	7	6	13	4	6	9	102
2	伊王島	Iwoshima.	15	12	10	12	6	7	14	13	16	3	7	7	122
3	蔭ノ尾島	Kagenoshima.	13	10	10	12	6	7	12	11	14	2	4	8	109
4	長崎	Nagasaki.	17	15	11	11	7	8	19	15	19	6	8	9	145
5	口ノ津	Kuchinotsu.	8	11	10	9	6	8	12	11	13	2	4	9	103
6	佐賀	Saga.	12	14	9	12	6	7	15	11	16	3	7	10	122
7	高瀬	Takase.	...	...	...	7	4	6	10	8	9	2	3	6	...
8	隈府	Waifu.	...	...	...	10	7	11	15	13	14	3	4	12	...
9	春日	Kasuga.	...	...	...	11	6	7	15	11	11	2	3	5	...
10	熊本	Kumamoto.	17	11	11	11	6	11	19	14	19	3	6	12	140
11	宮地	Miyaji.	...	...	...	6	4	7	12	10	8	1	4	4	...
12	御船	Mifune.	...	...	...	12	8	11	17	14	17	4	4	9	...
13	町山口	Machiyamaguchi.	...	...	...	11	5	9	12	14	16	3	5	8	...
14	八代	Yatsushiro.	...	...	...	12	8	7	16	12	12	3	6	7	...
15	人吉	Hitoyoshi.	...	...	...	11	7	8	16	15	19	6	6	11	...
		第二區 南海 II. SOUTHERN SEA.													
1	鹿兒島	Kagoshima.	17	12	11	13	10	11	21	21	19	9	4	11	159
2	佐多岬	Satanomisaki.	13	11	11	15	9	10	7	17	15	5	2	11	126
3	鞍崎	Kurasaki.	6	9	10	13	8	12	9	15	20	7	4	5	118
4	宮崎	Miyazaki.	5	8	12	15	6	14	14	17	23	10	3	7	134
5	宇和島	Uwajima.	...	...	...	11	6	10	17	17	20	6	9	16	...
6	高知	Kochi.	4	9	9	15	8	14	18	15	23	7	3	6	131
7	湯淺	Yuasa.	5	6	9	12	6	12	12	9	13	5	4	9	102
8	御坊	Gobo.	4	6	7	12	6	13	14	12	14	4	7	7	106
9	田邊	Tanabe.	7	6	10	11	6	14	16	15	16	4	5	6	116
10	潮岬	Shiwomisaki.	4	7	8	10	8	12	14	11	14	3	5	5	101
11	樫野崎	Kashinosaki.	3	9	9	11	9	16	16	11	15	5	6	6	116
12	新宮	Shingu.	2	4	7	6	10	17	12	16	19	7	4	6	110
13	木ノ本	Kinomoto.	3	7	8	7	6	12	12	12	15	2	4	4	92
14	尾鷲	Owashi.	...	...	...	13	7	14	10	12	15	5	5	5	...
15	安乗崎	Anorisaki.	2	5	7	8	7	10	11	7	11	4	3	4	79
16	菅島	Sugashima.	2	8	7	12	8	11	12	10	15	5	6	5	101
17	鳥羽	Toba.	4	12	11	12	9	16	13	16	14	7	6	7	127
18	宇治山田	Ujiyamada.	...	10	11	9	9	15	18	16	15	6	6	7	...
19	相可	Oka.	...	8	6	10	6	15	18	16	16	3	6	5	...
20	松坂	Matsusaka.	...	8	13	10	7	12	10	13	14	4	6	4	...
21	久居	Hisai.	...	11	11	11	6	12	14	12	15	3	5	3	...
22	新町	Shinmachi.	...	...	14	12	6	11	13	11	18	5	5	5	...
23	津	Tsu.	11	13	11	12	9	16	19	14	18	6	12	8	149
24	亀山	Kameyama.	...	8	10	9	7	12	13	9	17	2	5	6	...
25	白子	Shiroko.	...	8	11	9	8	12	12	10	14	1	4	3	...
26	四日市	Yokkaichi.	...	9	11	8	8	13	20	17	17	2	6	6	...
27	四日市	Yokkaichi.	5	10	9	9	9	11	16	15	16	3	8	6	117
28	楚原	Sohara.	...	...	10	9	5	13	19	13	17	3	4	6	...
29	桑名	Kuwana.	7	7	12	9	7	6	9	12	14	2	5	4	94
30	津島	Tsushima.	7	8	11	10	7	15	18	13	17	2	...	...	...
31	太田島	Otashima.	...	...	...	...	...	...	...	...	...	...	...	8	...
32	小折	Kori.	9	8	12	10	10	14	19	10	14	2	7	9	124
33	高須	Takasu.	9	8	9	8	8	12	17	14	13	2	5	6	111
34	高田	Takada.	12	11	14	9	10	15	20	13	20	2	8	11	145
35	垂井	Tarui.	16	9	13	9	8	15	23	15	17	2	11	10	148
36	大垣	Ogaki.	14	9	13	10	9	14	19	13	13	...	...	...	...
37	揖斐	Ibi.	10	4	8	9	8	12	20	10	14	...	...	...	...
38	北方	Kitakata.	10	9	13	10	10	14	20	12	17	...	...	...	...
39	笠松	Kasamatsu.	4	8	13	10	7	11	18	11	12	...	...	...	...
40	岐阜	Gifu.	12	10	10	9	10	13	22	13	18	3	10	10	140
41	高富	Takatomi.	12	9	12	9	9	14	19	15	14	1	...	...	...
42	上有知	Kamiuchi.	12	6	9	9	8	14	17	11	13	3	8	7	117
43	八幡	Hachiman.	17	8	12	10	9	15	18	14	13	2	6	6	130
44	太田	Ota.	7	6	10	7	10	17	20	13	16	2	11	7	126
45	御嵩	Mitake.	10	7	12	8	9	18	16	13	13	1	7	7	121
46	中津川	Nakatsugawa.	14	7	10	8	8	15	17	13	11	3	6	7	119
47	稲澤	Inasawa.	10	8	13	9	9	14	17	16	17	2	8	9	132
48	枇杷島	Biwajima.	8	9	10	9	8	14	18	11	17	2	7	5	118
49	名古屋	Nagoya.	9	10	10	9	8	12	18	13	17	5	9	7	127
50	熱田	Atsuta.	7	8	11	8	8	13	15	10	15	2	7	5	109

第三表　明治廿四年雨天日數
TABLE III. NUMBER OF RAINY DAYS IN 1891.

番號 No.	地名	Locality.	一月 Jan.	二月 Feb.	三月 Mar.	四月 Apr.	五月 May	六月 June	七月 July	八月 Aug.	九月 Sept.	十月 Oct.	十一月 Nov.	十二月 Dec.	年 Year
51	勝川	Kachukawa.	7	8	12	9	10	15	18	14	17	2	7	6	125
52	豐濱	Toyohama.	4	7	11	9	9	13	15	14	16	3	6	8	115
53	半田	Handa.	6	9	10	9	10	14	16	14	15	2	7	8	120
54	知立	Chiriu.	3	9	9	10	8	12	13	14	14	3	7	3	105
55	土岐津	Tokitsu.	10	7	11	9	10	17	18	12	14	3	11	9	131
56	佐久島	Sakushima.	7	7	12	9	7	11	11	12	12	2	7	7	104
57	西尾	Nishio.	5	9	12	11	10	16	18	14	20	2	8	7	132
58	岡崎	Okazaki.	5	7	9	10	9	16	16	15	14	2	7	7	117
59	擧母	Koromo.	8	8	12	8	9	14	16	12	13	2	7	8	117
60	足助	Asuke.	6	9	10	7	8	13	12	12	12	2	8	7	106
61	堀切	Horikiri.	4	7	11	10	9	11	12	11	11	4	4	6	100
62	豐橋	Toyohashi.	5	8	11	10	8	14	17	12	13	4	10	6	118
63	御油	Goyu.	4	7	11	10	8	13	15	13	13	3	9	6	112
64	新城	Shinshiro.	7	8	11	14	8	15	14	12	16	2	6	5	118
65	富岡	Tomioka.	4	7	13	12	8	11	13	12	14	2	7	6	109
66	田口	Taguchi.	8	8	13	8	7	14	14	12	15	2	7	5	113
67	濱松	Hamamatsu.	3	9	9	12	7	12	12	11	13	4	9	8	109
68	下田	Shimoda.	10	8	15	14	10	19	18	15	17	4	8	9	147
69	御前崎	Omaisaki.	3	7	9	11	5	10	8	2	9	4	6	3	77
70	沼津	Numazu.	2	9	11	12	5	15	13	8	16	6	9	7	113
71	石室崎	Irosaki.	2	8	9	10	8	8	15	6	7	4	10	3	90
72	神子元島	Mikomotoshima.	2	10	10	10	5	13	13	7	10	5	11	7	103
73	城ケ島	Jogashima.	3	5	10	8	6	11	11	4	11	4	8	4	85
74	劔崎	Tsurugisaki.	2	5	12	9	6	12	14	3	7	3	8	6	87
75	觀音崎	Kanonsaki.	3	6	13	9	5	11	7	4	8	3	7	3	79
76	横須賀	Yokosuka.	...	...	...	...	...	...	...	...	...	...	...	...	...
77	横濱	Yokohama.	2	7	12	10	5	13	12	4	12	3	11	5	96
78	品川	Shinagawa.	2	6	11	8	6	15	12	6	12	3	8	5	94
79	東京	Tokio.	2	8	16	13	6	16	14	9	14	5	10	5	118
80	野島崎	Noshimasaki.	2	5	11	11	4	10	6	3	5	2	8	5	72
81	鎌足	Kamatari.	2	3	...	...	...	...	...	...	...	...	...	...	...
82	足利	Ashikaga.	...	...	...	...	...	16	15	5	12	4	5	2	...
83	佐野	Sano.	...	...	...	...	...	15	14	4	...	3	5	1	...
84	栃木	Tochigi.	...	...	...	...	...	22	25	11	...	6	5	3	...
85	鹿沼	Kanuma.	...	...	...	...	...	17	22	18	10	6	5	4	...
86	宇都宮	Utsunomiya.	5	9	14	11	9	17	29	11	15	7	12	4	143
87	眞岡	Maoka.	...	...	...	...	...	21	23	13	11	4	6	3	...
88	眞岡	Maoka.	6	9	16	...	...	21	23	14	15	8	6	7	...
89	銚子	Choshi.	5	8	16	13	9	15	10	7	9	5	10	6	113
90	犬吠崎	Inuboyesaki.	4	4	18	12	11	16	10	6	9	6	10	5	111
91	那覇	Naha.	15	21	21	17	24	16	16	16	26	9	16	17	214
		第三區　東海　III. EASTERN SEA.													
1	矢板	Yaita.	...	...	...	...	...	19	28	17	10	3	4	6	...
2	太田原	Otawara.	...	...	...	...	...	22	26	17	13	5	5	4	...
3	平	Taira.	...	...	...	...	...	14	17	9	10	5	5	4	...
4	富岡	Tomioka.	...	...	...	...	...	12	17	10	13	7	6	6	...
5	中村	Nakamura.	...	...	...	...	...	19	18	10	12	7	6	5	...
6	白河	Shirakawa.	...	...	...	...	...	17	23	13	12	4	6	5	...
7	棚倉	Tanakura.	...	...	...	...	...	20	24	18	19	4	5	6	...
8	石川	Ishikawa.	...	...	...	...	...	19	25	14	14	3	5	5	...
9	須賀川	Sukagawa.	...	...	...	...	...	9	18	10	14	3	8	5	...
10	郡山	Koriyama.	...	...	...	...	...	11	13	9	11	3	6	6	...
11	三春	Miharu.	...	...	...	...	...	8	18	15	13	7	7	8	...
12	二本松	Nihonmatsu.	...	...	...	...	...	17	20	9	14	4	11	6	...
13	福島	Fukushima.	16	13	13	8	7	13	22	11	16	7	12	11	149
14	桑折	Kori.	...	...	...	...	...	10	20	12	15	8	8	9	...
15	角田	Kakuda.	4	5	12	7	8	14	16	12	14	5	6	5	108
16	大河原	Okawara.	1	2	9	5	5	14	10	9	8	6	7	5	81
17	長町	Nagamachi.	8	3	11	3	9	11	15	10	13	5	4	5	97
18	仙臺	Sendai.	11	6	6	7	12	20	22	15	18	6	5	7	135
19	原ノ町	Haranomachi.	16	11	12	9	10	17	17	16	20	8	11	8	155
20	吉岡	Yoshioka.	17	14	14	6	10	19	20	17	17	8	10	16	168
21	野蒜	Nobiru.	8	8	13	7	10	11	15	8	14	6	5	5	110
22	石ノ卷	Ishinomaki.	9	9	12	7	11	13	22	14	14	7	8	8	134
23	金華山	Kinkwasan.	1	8	10	6	7	6	12	8	7	4	8	7	84
24	古川	Furukawa.	...	...	...	...	...	...	...	...	14	...	...	...	...
25	相ノ谷	Ainoya.	...	...	...	...	...	...	...	...	14	...	...	...	...
26	築館	Tsukidate.	8	7	8	6	6	16	22	18	15	9	7	13	135
27	佐沼	Sanuma.	...	...	...	...	...	...	..	...	11	...	...	...	...

第三表　明治廿四年雨天日數
TABLE III. NUMBER OF RAINY DAYS IN 1891.

番號 No.	地名	Locality.	一月 Jan.	二月 Feb.	三月 Mar.	四月 Apr.	五月 May	六月 June	七月 July	八月 Aug.	九月 Sept.	十月 Oct.	十一月 Nov.	十二月 Dec.	年 Year
28	志津川	Shizukawa.	10	10	12	6	10	11	17	12	17	6	9	9	129
29	宮古	Miyako.	4	9	12	8	10	17	21	17	15	7	7	10	137
30	八戸	Hachinohe.	4	15	9	8	6	9	15	11	13	4	7	11	112
31	七戸	Shichinohe.	15	14	9	9	6	9	15	13	14	6	8	9	127
32	釧路	Kushiro.	...	...	...	...	...	...	...	...	12	5	2	7	...
33	釧路	Kushiro.	5	6	11	11	16	14	20	19	14	12	13	12	153
34	厚岸	Akkeshi.	5	6	10	11	13	13	17	14	17	9	4	11	130
35	落石崎	Otchishisaki.	7	5	11	9	11	8	17	14	12	11	6	5	116
36	納沙布崎	Noshiafsaki	8	7	7	8	6	7	14	12	12	11	6	8	106
37	根室	Nemuro.	7	3	9	11	16	14	17	19	16	9	10	12	143
38	辦天島	Bentenshima.	5	3	5	5	8	4	9	6	11	8	7	9	80
	第四區 內海	IV. INLAND SEA.													
	甲 南岸	a S. Coast.													
1	部崎	Hesaki.	12	14	11	10	9	10	14	11	12	2	7	9	121
2	大分	Oita.	7	13	11	15	5	9	15	14	17	5	5	7	123
3	宇和	Uwa.	...	...	...	12	6	8	14	17	7	3	6	13	...
4	八幡濱	Yawatahama.	...	...	...	11	6	8	16	13	17	11	7	17	...
5	大洲	Ozu.	...	...	...	13	6	10	16	12	20	9	10	18	...
6	久万町	Kumamachi.	...	...	13	12	7	15	17	17	18	12	7	14	...
7	郡中	Gunchu.	...	...	...	12	6	7	14	13	15	6	5	14	...
8	松山	Matsuyama.	10	11	11	12	6	11	18	12	18	6	7	14	132
9	三津濱	Mitsuhama.	...	...	...	11	4	8	16	6	14	3	6	6	...
10	釣島	Tsurishima.	6	9	10	10	7	8	13	10	14	5	3	7	102
11	今治	Imabari.	...	...	...	...	6	9	17	10	14	7	6	11	...
12	西條	Saijo.	...	...	...	3	6	8	7	10	18	8	6	7	...
13	川ノ江	Kawanoe.	...	...	...	12	6	11	18	13	20	12	6	11	...
14	鍋島	Nabeshima.	3	8	5	5	3	10	13	8	8	4	5	4	76
15	徳島	Tokushima.	...	...	...	...	...	...	16	12	18	5	7	6	...
	乙 北岸	b N. Coast.													
1	上保木	Kamiboki.	20	21	12	10	8	13	15	9	19	4	10	16	157
2	殿敷	Tonoshiki.	...	...	13	10	...	...	...	...	...	...	...	...	...
3	西須惠	Nishisue.	15	15	12	10	5	12	15	9	15	2	8	13	131
4	船木	Funaki.	14	12	9	11	5	10	15	8	14	3	4	10	115
5	伊佐	Isa.	...	...	11	12	6	13	15	11	21	7	11	15	...
6	太田	Ota.	18	19	12	13	7	14	16	12	18	6	9	13	157
7	山口	Yamaguchi.	19	21	16	11	9	12	15	14	19	6	11	15	168
8	御堀	Mihori.	16	18	13	12	7	12	17	12	...	5	9	11	...
9	三田尻	Mitajiri.	15	15	12	10	7	10	18	12	22	6	8	13	148
10	堀	Hori.	...	...	11	11	6	14	18	11	18	6	12	14	...
11	徳山	Tokuyama.	11	8	11	11	5	9	17	11	17	5	7	13	125
12	室積	Murotsumi.	9	11	8	10	5	9	15	12	14	3	5	7	108
13	柳井	Yanai.	9	...	8	...	...	...	...	...	...	...	...	...	...
14	東屋代	Higashiyashiro.	11	13	7	10	6	10	16	13	16	6	6	10	124
15	伊保田	Ihota.	8	13	9	11	6	10	16	14	16	4	5	10	122
16	下久原	Shimokubara.	...	7	10	11	6	9	15	10	12	3	6	10	...
17	須々万本郷	Susumahongo.	...	17	13	13	8	13	21	12	22	8	10	15	...
18	横山	Yokoyama.	12	12	8	10	6	11	16	11	19	8	8	12	133
19	鹿野上	Kanokami.	15	12	11	10	6	12	16	12	18	4	9	12	137
20	本郷	Hongo.	23	17	14	12	8	9	17	11	19	4	7	16	157
21	二十日市	Hatsukaichi.	5	8	8	9	10	11	15	10	14	2	3	6	101
22	廣島	Hiroshima.	9	10	11	9	7	10	17	12	17	3	5	9	119
23	吉浦	Yoshiura.	4	7	8	9	6	11	16	9	15	3	3	8	98
24	可部	Kabe	9	8	10	8	8	10	19	10	14	5	2	13	116
25	西條	Saijo.	5	8	13	11	8	11	14	11	10	7	7	14	119
26	忠海	Tadanomi.	3	10	10	13	8	13	13	11	7	2	2	6	98
27	尾道	Onomichi.	3	6	5	8	6	13	13	11	10	5	2	4	86
28	府中市	Fuchuichi.	3	9	7	9	6	10	14	11	9	1	6	7	92
29	福山	Fukuyama.	3	9	9	7	5	11	13	11	10	5	6	8	97
30	高梁	Takahashi.	...	...	...	...	...	...	...	...	...	6	9	11	...
31	岡山	Okayama.	4	10	8	9	7	14	16	11	14	7	7	9	116
32	久世	Kuse.	...	...	...	...	...	...	...	...	...	...	9	10	...
33	津山	Tsuyama.	...	...	...	...	...	...	...	...	15	4	7	10	...
34	江崎	Yesaki.	2	9	9	9	8	9	14	7	12	2	5	5	91
35	和田岬	Wadanomisaki.	3	9	7	8	5	5	12	8	12	1	1	5	76
36	神戸	Kobe.	2	7	8	4	4	4	10	7	12	1	2	4	65
37	本酉島	Hontorishima.	...	...	7	10	6	12	17	11	14	4	9	7	...
38	天保山	Temposan.	2	10	9	8	6	8	15	8	12	1	5	7	91
39	大阪	Osaka.	5	11	11	7	7	12	16	12	17	8	10	10	126
40	天王寺	Tennoji.	6	11	9	9	4	7	13	11	11	3	8	5	97

第三表 明治廿四年雨天日數
TABLE III. NUMBER OF RAINY DAYS IN 1891.

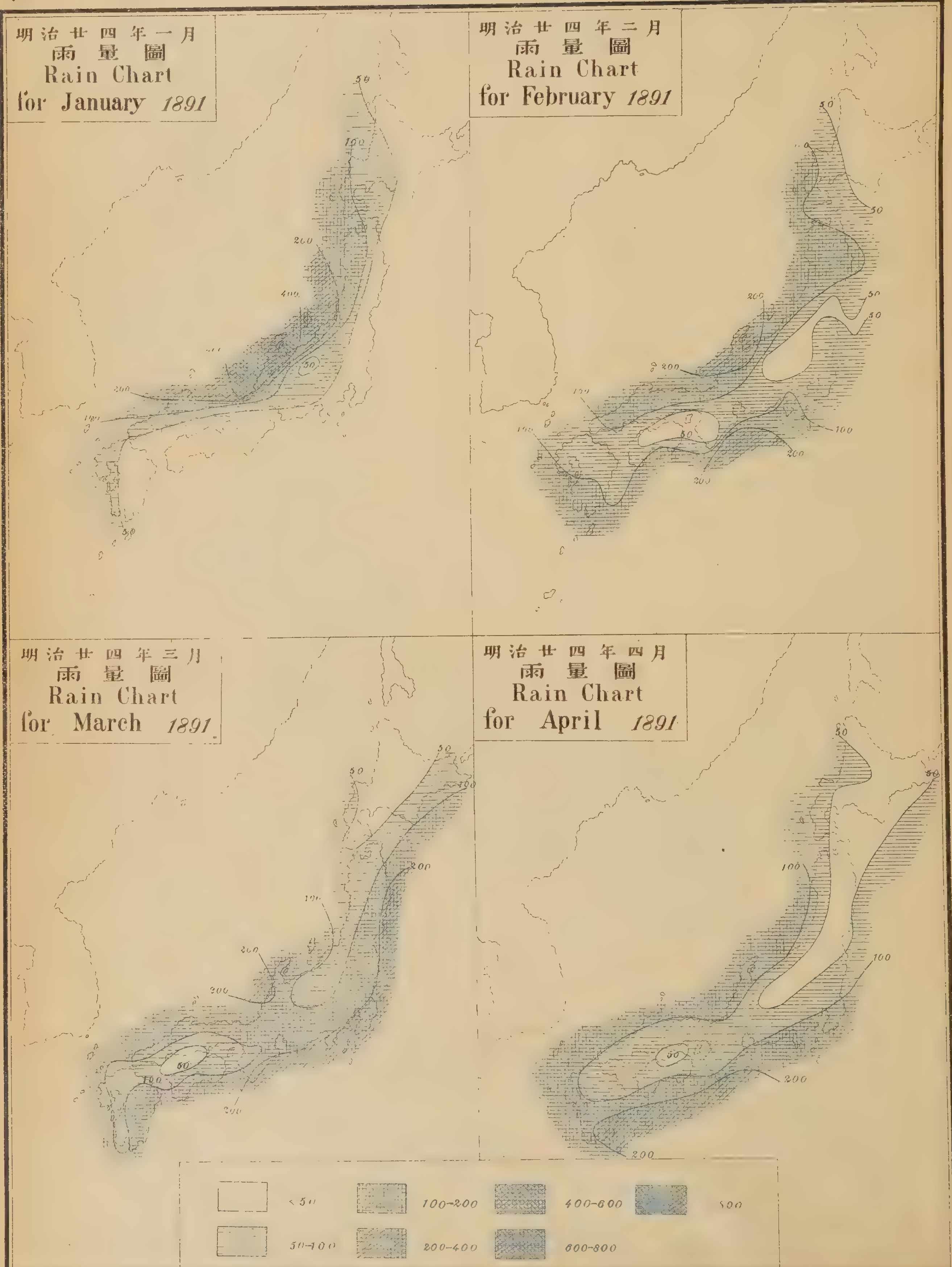
番號 No.	地名	Locality.	一月 Jan.	二月 Feb.	三月 Mar.	四月 Apr.	五月 May	六月 June	七月 July	八月 Aug.	九月 Sept.	十月 Oct.	十一月 Nov.	十二月 Dec.	年 Year
41	大信寺	Daishinji.	5	10	8	7	4	8	10	11	12	3	8	7	93
42	池田	Ikeda.	8	12	10	11	7	12	17	11	12	6	6	5	117
43	茨木	Ibaraki.	4	6	10	10	6	12	19	10	11	3	6	5	102
44	枚方	Hirakata.	3	5	11	8	7	10	15	9	12	5	5	4	94
45	園部	Sonobe.	...	...	...	...	...	...	21	14	16	6	12	12	...
46	龜岡	Kameoka.	...	...	...	...	...	...	19	11	14	3	10	6	...
47	向日	Muko.	...	...	...	...	...	...	19	15	11	4	5	5	...
48	伏見	Fushimi.	...	...	...	...	...	...	19	15	13	4	5	5	...
49	淀	Yodo.	...	...	...	...	...	...	18	13	12	3	4	6	...
50	田邊	Tanabe.	...	...	...	...	...	...	17	14	14	4	13	10	...
51	木津	Kizu.	...	...	...	...	...	...	16	10	12	3	8	7	...
52	周山	Shuzan.	...	...	...	...	...	...	21	16	15	9	16	13	...
53	太秦	Uzumasa.	...	...	...	...	...	...	20	13	13	3	10	8	...
54	京都	Kioto.	11	15	9	10	8	14	23	14	13	4	10	11	142
55	田中	Tanaka.	...	...	...	...	...	...	22	14	11	2	7	7	...
56	醍醐	Daigo.	...	...	...	...	...	...	19	14	12	3	6	4	...
57	名張	Nabari.	...	11	16	11	5	13	16	9	14	2	4	4	...
58	上野	Ueno.	4	11	10	10	5	11	10	10	13	5	5	5	99
59	堺	Sakai.	7	11	9	9	6	10	15	10	13	3	9	7	109
60	長承寺	Choshoji.	5	6	6	9	6	9	13	7	12	3	5	4	85
61	富田林	Tondabayashi.	8	9	9	10	6	8	12	8	12	3	4	5	94
62	岸和田	Kishiwada.	12	9	9	10	7	11	14	11	12	5	7	8	115
63	苫ヶ島	Tomagashima.	3	8	7	7	8	6	13	9	12	2	5	6	86
64	和歌山	Wakayama.	6	9	10	10	8	15	16	11	16	4	7	7	119
65	秋月	Akizuki.	5	10	9	7	5	10	13	10	10	2	6	6	93
66	清水	Shimizu.	...	6	8	9	6	11	6	6	11	5	5	8	...
67	古佐田	Kosada.	4	8	8	9	3	4	...	10	13	4	5	6	...
68	高野山	Koyasan.	16	6	11	9	7	13	10	15	13	4	6	8	118
	第五區 日本海	V. SEA OF JAPAN.													
1	烏帽子島	Yeboshishima.	9	13	8	8	4	8	13	9	14	2	6	7	101
2	福岡	Fukuoka.	14	17	13	11	6	9	14	14	15	3	8	11	135
3	白洲	Shirasu.	13	16	13	8	9	10	14	11	19	2	8	10	133
4	六連島	Mutsureshima.	15	20	16	9	6	9	17	13	19	6	8	11	149
5	赤間關	Akamagaseki.	17	18	13	9	7	11	13	13	18	6	8	10	143
6	小串	Kokushi.	17	19	12	10	8	11	16	11	19	4	8	12	147
7	嚴原	Itsugahara.	12	13	10	9	8	8	21	12	17	5	8	11	134
8	角島	Tsunoshima.	12	16	12	8	7	9	13	10	15	4	8	8	122
9	神田下	Kandashimo.	20	18	9	9	6	11	16	10	17	4	8	13	141
10	向津具	Mukatsuku.	17	16	...	...	...	...	15	10	20	...	...	13	...
11	深川	Fukagawa.	20	20	13	11	6	13	18	10	18	7	11	14	161
12	佐々並	Sasanami.	22	23	15	12	8	12	19	12	21	7	13	20	184
13	生雲中	Ikumonaka.	20	23	14	9	8	12	16	11	19	3	12	19	166
14	德佐中	Tokusanaka.	23	20	14	10	7	...	18	12	22	6	12	...	...
15	萩	Hagi.	22	20	12	11	8	14	17	10	17	6	11	17	165
16	須佐	Susa.	22	20	12	12	7	12	16	10	18	7	14	17	167
17	津和野	Tsuwano.	...	...	...	...	...	11	12	11	17	7	12	19	...
18	益田	Masuta.	...	...	...	12	9	11	14	9	18	5	13	18	...
19	濱田	Hamada.	...	...	...	...	6	12	14	8	16	6	10	12	...
20	吉田	Yoshida.	7	7	14	12	7	13	18	12	15	7	11	8	131
21	三次	Miyoshi.	5	6	13	12	8	11	18	13	17	7	11	13	134
22	庄原	Shohara.	2	5	3	6	4	11	18	10	11	3	4	10	87
23	川本	Kawamoto.	...	...	...	...	...	...	...	...	...	...	12	12	...
24	大森	Omori.	...	...	...	...	...	15	16	7	17	5	9	12	...
25	掛合	Kakeya.	...	...	...	...	6	11	10	9	15	3	13	14	...
26	今市	Imaichi.	...	...	...	...	...	10	11	7	16	3	10	14	...
27	廣瀬	Hirose.	...	...	...	...	...	13	11	7	14	5	14	16	...
28	米子	Yonago.	...	...	...	8	3	9	9	5	10	6	13	13	...
29	境	Sakai.	28	25	17	9	11	13	18	10	17	12	19	25	204
30	二部宿	Nibujuku.	...	...	...	12	8	12	22	10	14	9	12	12	...
31	倉吉	Kurayoshi.	...	...	...	9	4	10	18	6	16	13	15	14	...
32	郡家	Koge.	...	...	...	11	7	12	22	11	16	11	14	18	...
33	吉岡	Yoshioka.	...	...	...	11	8	12	21	7	16	5	14	15	...
34	鳥取	Tottori.	...	...	...	11	8	12	19	11	16	10	15	18	...
35	久美濱	Kumibama.	...	...	...	...	...	...	19	11	17	13	20	24	...
36	網野	Amino.	...	...	...	...	...	...	...	9	18	12	21	24	...
37	峰山	Mineyama.	...	...	...	...	...	...	19	12	18	12	21	22	...
38	宮津	Miyatsu.	...	...	...	...	...	...	20	11	19	10	18	23	...
39	福知山	Fukuchiyama.	...	...	...	...	...	...	16	15	17	6	10	14	...
40	綾部	Ayabe.	...	...	...	...	...	...	24	13	18	7	14	13	...

第三表　明治廿四年雨天日數
TABLE III. NUMBER OF RAINY DAYS IN 1891.

番號 No.	地名	Locality.	一月 Jan.	二月 Feb.	三月 Mar.	四月 Apr.	五月 May	六月 June	七月 July	八月 Aug.	九月 Sept.	十月 Oct.	十一月 Nov.	十二月 Dec.	年 Year
41	舞鶴	Maitsuru.	...	...	...	...	...	...	20	12	19	12	16	19	...
42	立石岬	Tateishinohana.	23	17	12	7	8	11	17	6	11	4	13	22	151
43	金澤	Kanazawa.	29	21	20	9	9	15	20	12	14	12	19	25	205
44	祿剛崎	Rokkosaki.	28	15	16	10	6	14	18	11	18	7	19	26	188
45	伏木	Fushiki.	29	23	18	12	10	14	21	12	15	12	18	26	210
46	高山	Takayama.	23	8	8	6	8	14	20	17	11	4	11	6	136
47	糸魚川	Itoigawa.	4?	4?	8	6	8	3	7	4	7	2	8	9	70?
48	高城	Takagi.	3?	4?	12	6	4	7	19	14	9	9	13?	9	109?
49	柏崎	Kashiwasaki.	5	3	21	18	10	14	24	16	18	15	18	11	173
50	相川	Aikawa.	...	...	...	...	...	...	...	...	...	...	...	...	...
51	長野	Nagano.	24	14	11	7	7	15	20	13	11	4	12	13	151
52	十日町	Tokamachi.	3?	3?	8	8	2	9	16	7	14	8	13	5?	96?
53	六日町	Muikamachi.	0?	4	14	7	9	10	20	15	18	13	16	7?	133?
54	小千谷	Ojiya.	6?	4?	13	9	6	10	20	13	14	12	19	13?	139?
55	三條	Sanjo.	6	4	10	6	3	9	11	5	8	3	6	10	81
56	新津	Niitsu.	9	5	11	6	2	10	8	7	7	1	9	7	82
57	新潟	Niigata.	31	22	18	10	11	15	23	13	16	14	25	26	224
58	新潟	Niigata.	25	13	12	8	6	10	19	12	14	8	18	16	161
59	田島	Tajima.	...	...	...	...	...	12	21	18	13	9	15	15	...
60	高田	Takata.	...	...	...	...	...	10	23	17	14	10	17	16	...
61	若松	Wakamatsu.	...	...	...	...	...	11	21	17	15	8	19	16	...
62	猪苗代	Inawashiro.	...	...	...	...	...	...	...	...	12	8	...	...	...
63	坂下	Bange.	...	...	...	...	...	10	23	16	19	10	17	15	..
64	喜多方	Kitakata.	...	...	...	...	...	10	20	12	11	6	13	17	...
65	津川	Tsugawa.	5?	0?	7?	7	7	7	18	15	11	6	15?	10	108?
66	村上	Murakami.	1	4	7	4	5	10	16	11	8	10	14	10	100
67	山形	Yamagata.	26	20	15	7	8	10	22	12	15	9	19	20	183
68	本莊	Honjo.	15	11	17	5	...	...	...	...	18	11	10	23	...
69	湯澤	Yuzawa.	19?	11?	9	8	8	9	18	15	14	5	9	11	136?
70	横手	Yokote.	12	9	14	10	9	4	25	11	20	10	12	19	155
71	大曲	Omagari.	15	7	6	4	1	6	7	7	7	2	9	16	87
72	秋田	Akita.	29	22	19	11	15	10	26	19	20	17	19	26	233
73	船川	Funakawa.	21	24	11	11	13	14	19	17	16	12	20	26	204
74	能代	Noshiro.	22	13	16	12	15	12	6	15	22	12	23	26	194
75	鷹巣	Takanosu.	18	18	14	11	11	13	23	17	23	12	21	27	208
76	花輪	Hanawa.	21	9	6	13	6	12	16	14	17	12	14	22	162
77	鰺ヶ澤	Ajigasawa.	13	6	7	3	0	0	9	9	9	3	8	7	74
78	鷗島	Kamomeshima.	21	13	6	7	10	12	22	13	14	13	17	22	170
79	稲穂崎	Inahosaki.	...	...	...	...	...	...	...	...	...	...	...	10	...
80	辨慶崎	Benkeisaki	22	15	6	7	5	3	10	12	12	14	19	20	145
81	壽都	Suttu.	30	21	18	12	16	14	17	18	16	20	21	24	227
82	神威岬	Kamoisaki.	29	22	11	10	14	2	20	15	10	19	21	23	196
83	日和山	Hiyoriyama.	28	20	16	14	13	11	19	19	14	16	18	23	211
84	札幌	Sapporo.	20	15	11	12	14	14	18	21	14	20	19	20	198
85	上川	Kamikawa.	18	14	12	17	13	10	24	17	13	21	19	19	197
86	增毛	Mashike.	16	10	13	9	5	4	17	15	6	14	17	19	145
87	仁川	Jenchuan.	11	5	6	6	6	6	12	14	7	3	3	7	86
88	釜山	Fusan.	2	6	7	6	5	5	15	5	13	1	1	4	70
89	元山	Yuensan.	2	3	1	3	2	11	15	17	13	4	6	6	83
90	浦潮港	Vladivostok.	1	0	2	3	7	10	9	9	5	0	2	5	53
		第六區　津輕海峽　VI. TSUGARU STRAIT.													
1	富田	Tomita.	20	16	8	5	6	5	12	3	13	7	10	11	116
2	黒石	Kuroishi.	13	0	1	4	5	7	16	5	17	...	9	9	...
3	五所川原	Goshogawara.	22	10	7	7	11	6	16	10	15	12	17	16	149
4	青森	Aomori.	28	20	19	14	11	12	24	15	18	14	23	24	222
5	田名部	Tanabu.	16	16	12	8	8	8	17	11	14	6	11	8	135
6	尻矢崎	Shiriyasaki.	19	16	13	8	6	14	14	12	16	8	15	20	161
7	福山	Fukuyama.	28	16	14	8	9	11	14	14	17	11	15	22	179
8	白神崎	Shirakamisaki.	23	15	9	12	9	13	21	15	11	8	16	28	180
9	葛登支岬	Kattojimisaki.	22	19	12	7	10	10	13	12	17	8	14	24	168
10	函館	Hakodate.	23	17	14	9	9	14	18	14	20	10	14	21	183
11	惠山岬	Yesan misaki.	12	9	9	8	5	15	18	12	18	7	10	11	134
12	襟裳岬	Erimomisaki.	16	8	11	8	13	13	20	12	17	10	11	14	153
		第七區　阿哥斯克海　VII. OKHOTSK SEA.													
1	宗谷岬	Soyamisaki.	13	6	7	9	12	7	11	8	10	19	26	23	151
2	網走	Abashiri.	10	7	5	8	12	8	12	14	9	17	17	11	130

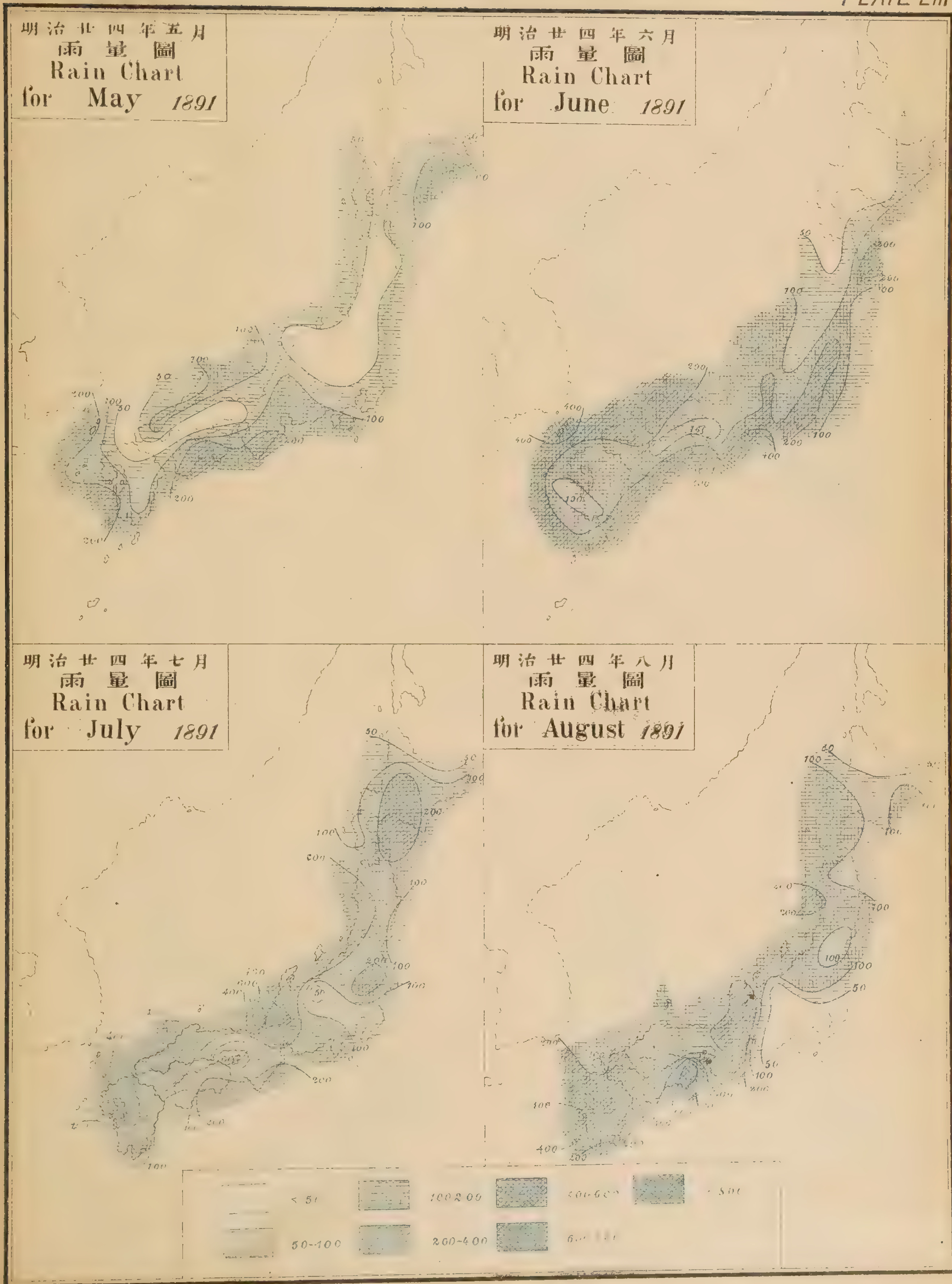
第五十一圖 PLATE LI




明治廿四年一月
雨量圖
Rain Chart
for January 1891
明治廿四年二月
雨量圖
Rain Chart
for February 1891
明治廿四年三月
雨量圖
Rain Chart
for March 1891
明治廿四年四月
雨量圖
Rain Chart
for April 1891
<50
50–100
100–200
200–400
400–600
600–800

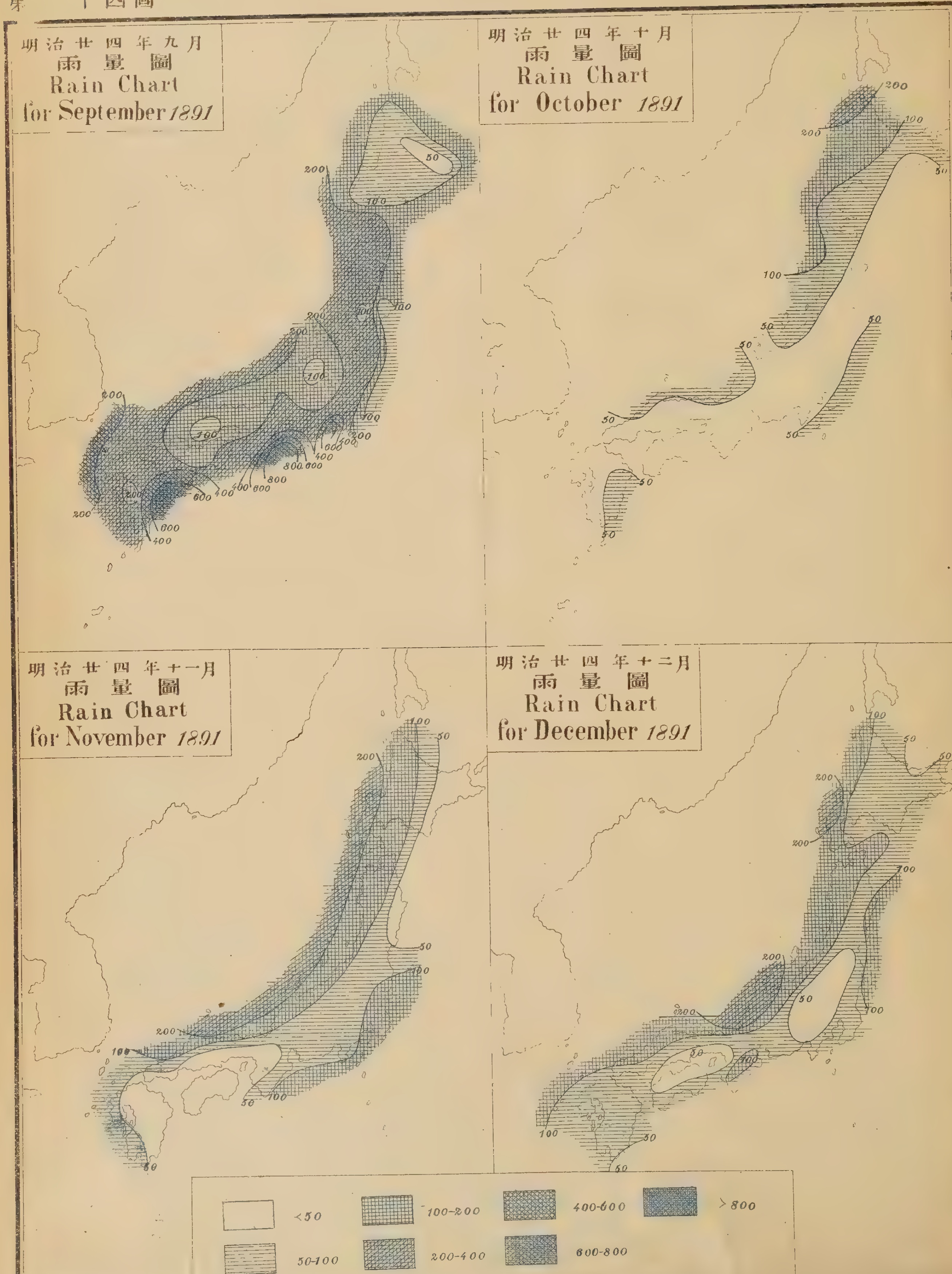
第五十三圖

PLATE LIII



第　十四圖

PLATE LIV



第五十六圖

PLATE LVI




SPECIAL EARTHQUAKE
of
1891.
July.
Augu
Slight.
Weak.
Strong.
Violent.
Very Violent.


明治廿四年
SPECIAL EARTHQUAKE
of
1891.
Violent
劇震

明治廿四年八月御嶽山頂及黒澤同時観測

SIMULTANEOUS OBSERVATIONS ON THE SUMMIT OF ONTAKE AND AT KUROSAWA, AUGUST, 1891.

御嶽山頂

晴雨計 (粍)

BAROMETER (mm)

on the Summit of Ontake.

月日 Date	午前二時 2 am	午前四時 4 am	午前六時 6 am	午前八時 8 am	午前十時 10 am	正午 Noon	午後二時 2 pm	午後四時 4 pm	午後六時 6 pm	午後八時 8 pm	午後十時 10 pm	夜半 M. N.	平均 Mean
八月 August	+500	+500	+500	+500	+500	+500	+500	+500	+500	+500	+500	+500	+500
1	31.8	31.6	32.1	32.6	32.8	33.3	33.1	33.2	33.2	33.4	33.6	33.3	32.83
2	33.1	32.8	32.9	32.9	33.3	32.9	33.0	31.8	33.1	33.7	34.2	34.2	33.16
3	34.0	33.8	34.3	34.4	34.3	34.1	33.3	32.7	31.6	32.3	31.9	31.3	33.17
4	31.0	31.4	32.1	32.2	32.7	32.6	32.8	32.8	32.2	32.5	32.8	32.8	32.33
5	32.7	32.8	33.1	33.5	33.6	33.9	33.5	33.7	33.7	33.9	33.9	33.8	33.51
6	33.6	33.8	34.0	34.2	34.2	34.3	34.0	34.2	34.0	34.2	34.2	34.0	34.06
7	33.8	33.7	33.7	34.0	34.2	34.2	34.1	33.9	34.0	34.0	34.2	33.7	33.96
8	33.5	33.6	33.5	33.9	34.3	34.6	34.5	34.5	34.4	34.6	34.9	34.6	34.24
9	34.3	34.0	34.1	34.4	34.4	34.1	33.8	33.5	33.1	33.1	32.8	32.4	33.67
10	31.5	31.1	31.3	31.0	30.6	30.9	30.5	30.1	29.6	30.1	30.0	29.1	30.48
11	28.6	28.4	28.5	28.9	29.4	29.4	29.6	29.8	29.9	30.3	30.4	30.0	29.48
12	30.0	30.0	30.2	30.9	31.4	31.9	32.0	31.9	31.7	32.3	32.4	32.3	31.42
13	32.0	32.0	32.0	32.3	33.0	33.1	33.1	33.1	33.0	33.0	33.1	32.9	32.72
14	32.3	32.0	32.0	32.5	32.7	31.7	32.6	32.6	32.8	33.1	33.0	33.1	32.53
15	33.1	32.4	33.1	33.2	33.4	33.5	33.7	33.6	33.4	33.7	33.7	31.4	33.18
16	32.9	32.7	32.6	32.5	32.4	32.1	30.9	29.7	29.1	28.9	26.1	24.4	30.36
17	23.8	24.6	25.3	25.6	26.7	27.8	28.7	28.9	29.2	29.7	30.3	30.0	27.55
18	29.7	29.4	29.5	29.6	29.1	29.2	28.9	29.1	28.8	28.5	28.0	27.7	28.96
19	28.1	27.9	28.5	29.0	29.6	30.3	30.4	30.2	29.8	30.0	30.3	30.1	29.52
20	30.1	29.8	29.6	30.0	30.4	30.3	30.1	30.2	30.2	30.3	30.3	30.0	30.12
21	29.4	29.1	28.9	28.9	28.7	28.6	28.7	28.2	27.3	28.5	28.3	28.5	28.59
22	29.0	28.4	29.0	29.6	30.4	30.3	30.2	29.9	30.3	30.9	30.8	30.5	29.94
23	30.2	30.1	30.7	31.0	31.3	31.3	31.8	31.6	31.7	32.5	32.8	33.0	31.50
24	32.6	32.9	33.5	33.6	34.1	35.1	34.9	33.9	33.7	33.7	33.7	33.4	33.77
25	33.2	33.0	32.8	32.8	33.5	33.2	33.1	33.0	33.1	33.3	33.1	32.8	33.07
26	32.0	32.0	32.2	32.3	32.4	32.1	31.9	31.6	31.5	32.1	32.1	31.9	32.01
27	31.5	31.4	31.7	32.2	32.4	32.5	32.5	32.3	32.4	32.8	32.9	32.7	32.27
28	32.5	32.2	32.3	32.6	33.0	33.0	32.6	32.5	32.3	32.7	32.3	32.1	32.51
29	31.7	31.6	31.8	31.6	32.1	32.1	31.6	31.4	31.6	31.7	31.4	31.1	31.64
30	30.6	30.5	30.7	31.3	31.3	31.2	31.1	30.9	31.3	31.3	31.4	31.3	31.07
31	31.0	31.2	31.6	32.1	32.6	32.3	32.2	32.4	32.6	33.4	33.3	33.2	32.32
平均 Mean	31.41	31.30	31.54	31.79	32.07	32.13	32.04	31.84	31.76	32.08	32.01	31.66	31.80
九月 September													
1	32.8	32.8	32.7	33.1	33.7	33.7	34.0	34.1	34.3	34.7	34.7	34.9	33.79
2	34.3	34.4	34.5	34.9	35.3	35.3	35.1	35.2	35.4	35.7	35.5	35.7	35.11
3	35.5	35.6	35.9	36.0	36.4	36.2	36.2	36.0	35.9	36.4	36.3	36.0	36.03
4	35.7	35.6	35.6	35.6	35.8	35.5	35.0	34.7	34.6	34.7	34.2	33.8	35.07
5	33.2	32.6	32.4	32.4	32.9	33.1	32.8	32.5	32.4	32.7	32.6	32.6	32.68
6	32.5	32.3	32.3	32.6	32.8	32.8	32.7	32.5	32.6	32.6	32.6	32.4	32.56
7	32.0	31.8	31.9	32.1	32.4	32.2	31.9	31.6	31.4	31.7	31.4	31.6	31.83
8	31.5	31.1	31.2	31.4	31.6	31.4	31.1	30.9	30.6	30.4	29.9	29.5	30.88
9	29.1	29.3	29.9	30.5	31.1	30.9	30.7	31.1	31.5	32.2	32.0	31.5	30.82
10	31.2	30.1	30.4	29.7	30.4	30.0	30.9	30.9	31.4	31.8	31.8	31.7	30.88
11	31.5	31.7	31.2	32.6	33.1	33.1	33.1	33.1	32.9	33.4	33.1	33.0	32.65
12	32.7	32.9	33.4	33.9	33.6	34.1	33.6	33.3	33.3	33.5	33.3	32.7	33.36
平均 Mean	32.67	32.54	32.62	32.90	33.26	33.19	33.09	32.99	33.02	33.32	33.12	32.95	32.97
四十三日間平均 43 days Mean	31.76	31.64	31.84	32.10	32.40	32.42	32.33	32.17	32.11	32.43	32.32	32.02	32.13

明治廿四年八月御嶽山頂及黒澤同時觀測

SIMULTANEOUS OBSERVATIONS ON THE SUMMIT OF ONTAKE AND AT KUROSAWA, AUGUST, 1891.

御嶽山頂

空氣之溫度 (攝氏)

AIR TEMPERATURE (°C)

on the Summit of Ontake.

月日 Date	午前二時 2 am	午前四時 4 am	午前六時 6 am	午前八時 8 am	午前十時 10 am	正午 Noon	午後二時 2 pm	午後四時 4 pm	午後六時 6 pm	午後八時 8 pm	午後十時 10 pm	夜半 M. N.	平均 Mean
八月 August													
1	6.6	5.0	5.1	8.4	11.4	15.9	18.7	14.9	9.2	7.1	8.1	8.1	9.87
2	8.2	8.5	9.2	9.3	10.0	9.1	9.2	7.1	7.3	6.4	8.0	8.4	8.39
3	8.2	9.0	8.8	8.4	8.8	9.3	9.0	8.2	6.2	7.1	7.2	7.1	8.11
4	8.1	8.0	8.9	9.2	9.9	9.1	9.0	9.2	7.1	6.0	6.5	8.4	8.28
5	8.0	8.2	8.2	9.7	10.0	12.8	11.2	9.0	8.9	8.3	8.0	8.0	9.19
6	8.6	8.4	8.0	8.0	7.0	10.8	11.1	11.3	9.1	8.8	7.7	7.9	8.89
7	8.2	8.4	7.8	11.8	13.7	16.4	16.6	14.8	10.2	8.6	7.6	6.8	10.91
8	6.4	6.2	8.1	11.7	13.4	14.0	15.4	14.0	11.0	9.2	8.3	8.1	10.48
9	8.9	8.4	8.4	10.0	15.8	14.6	14.2	12.2	9.8	8.2	8.2	8.4	10.59
10	8.0	8.3	8.2	8.8	8.8	10.2	10.8	9.8	8.6	8.5	7.9	8.1	8.83
11	7.0	5.1	6.3	8.4	8.8	9.3	9.6	9.7	9.0	7.2	8.1	7.3	7.98
12	6.2	5.4	6.3	7.8	13.8	15.4	15.4	12.4	9.0	8.2	8.0	9.0	9.74
13	9.0	8.1	8.3	8.2	11.2	16.9	15.6	14.6	11.2	9.4	8.5	8.4	10.78
14	8.4	8.1	8.5	11.5	15.7	18.0	18.2	15.1	11.7	10.2	9.4	9.4	12.02
15	8.7	8.3	8.9	11.8	13.3	15.9	15.2	12.2	9.2	8.3	8.2	6.2	10.52
16	7.0	7.6	6.2	7.9	8.4	9.2	9.0	8.4	8.5	7.7	8.4	9.4	8.14
17	9.3	9.3	9.2	9.7	8.7	9.7	9.2	9.5	9.0	9.4	9.7	9.1	9.32
18	9.0	9.3	9.0	9.1	9.3	9.8	9.2	9.4	9.1	3.8	4.5	3.1	7.88
19	2.1	1.3	2.4	6.0	8.2	11.1	10.7	8.4	6.4	5.3	5.0	3.8	5.89
20	3.2	3.3	5.1	9.0	12.8	12.1	12.5	8.9	5.4	5.0	4.8	3.8	7.16
21	3.5	4.7	5.4	4.8	7.2	8.0	8.0	7.1	7.9	7.6	7.9	8.4	6.71
22	8.6	6.8	5.4	6.4	8.2	10.0	8.6	7.3	7.2	7.4	7.6	7.5	7.58
23	7.0	6.2	7.2	7.8	9.0	8.7	8.1	6.9	5.2	5.3	5.6	4.4	6.78
24	4.6	4.4	4.8	6.6	8.8	11.6	10.4	9.1	5.4	4.8	4.8	5.0	6.69
25	4.0	3.4	3.7	5.2	8.1	10.7	13.4	10.2	6.0	4.8	3.9	3.8	6.43
26	3.8	2.9	4.1	9.9	13.2	13.4	12.3	11.2	6.2	5.0	4.8	4.1	7.57
27	4.4	5.1	5.9	11.1	12.5	14.8	10.2	8.3	6.3	5.9	3.8	3.8	7.67
28	3.9	3.8	4.7	5.2	11.6	10.1	9.4	8.6	6.7	5.6	5.4	4.6	6.63
29	4.2	5.0	4.7	5.4	8.1	5.0	11.6	10.4	7.2	6.3	6.9	6.4	6.77
30	5.7	5.4	7.8	10.8	18.2	18.3	16.3	13.5	8.3	7.0	7.2	7.0	10.46
31	7.1	6.6	8.0	13.3	17.6	15.7	13.0	10.7	9.4	7.5	9.2	8.9	10.58
平均 Mean	6.64	6.40	6.86	8.75	11.02	12.13	11.97	10.40	8.12	7.09	7.07	6.86	8.61
九月 September													
1	6.2	6.2	7.5	9.3	15.8	19.2	16.5	14.1	9.5	7.9	8.3	8.4	10.74
2	8.4	8.2	7.9	8.9	11.9	16.7	16.0	12.9	10.3	9.0	9.2	9.3	10.72
3	8.6	8.9	8.9	11.7	18.5	15.7	15.0	15.3	12.3	9.6	9.7	8.9	11.92
4	9.2	9.2	9.0	12.9	17.2	18.0	16.1	11.7	10.5	8.8	8.6	7.2	11.53
5	7.4	6.8	6.0	7.1	9.5	17.9	19.0	14.7	9.7	7.8	7.4	8.4	10.14
6	8.0	7.7	8.4	14.6	18.2	17.9	17.7	16.0	9.9	8.0	7.1	7.4	11.74
7	7.5	7.2	7.0	8.7	16.1	13.2	13.0	10.0	8.7	7.4	6.5	7.0	9.36
8	6.5	6.6	5.8	7.5	7.4	7.2	7.6	5.7	6.7	6.0	6.8	8.1	6.82
9	7.9	8.2	8.8	9.2	9.6	9.9	9.8	9.4	8.2	8.8	9.0	7.9	8.89
10	7.6	7.7	6.4	5.8	7.0	7.4	8.2	9.3	9.9	10.1	10.3	7.8	8.12
11	8.0	7.6	9.4	8.9	9.9	10.6	9.8	9.4	8.2	6.8	8.2	7.0	8.65
12	6.8	6.2	6.3	8.2	12.8	12.4	12.6	10.0	8.5	8.6	9.2	9.0	9.22
平均 Mean	7.67	7.54	7.62	9.40	12.82	13.84	13.44	11.54	9.37	8.23	8.36	8.03	9.82
四十三日間平均 43 days Mean	6.93	6.72	7.07	8.93	11.52	12.60	12.38	10.72	8.47	7.41	7.43	7.19	8.95

明治廿四年八月御嶽山頂及黒澤同時觀測

SIMULTANEOUS OBSERVATIONS ON THE SUMMIT OF ONTAKE AND AT KUROSAWA, AUGUST, 1891.

御嶽山頂

氣溫日溫地溫之最高最低及地中溫度

EXTREMES OF AIR TEMPERATURE, SOLAR AND TERRESTRIAL RADIATION; AND EARTH TEMPERATURE

on the Summit of Ontake.

月 日 Date	最高溫度 Max. Temp.	最低溫度 Min. Temp.	較差 Range	最高日溫 Max. S. R.	最低地溫 Min. T. R.	地中溫度 EARTH TEMPERATURE 地面 on Surface 午前二時 2 am	午前六時 6 am	午前十時 10 am	午後二時 2 pm	午後六時 6 pm	午後十時 10 pm	平均 Mean	〇、三米 0.3 m. 午前十時 10 am	午後十時 10 pm	平均 Mean
八月 August															
1	18.8	4.4	14.4	24.5	2.9	....	....	14.8	24.7	13.6	9.3	....	....	10.2	....
2	10.7	6.2	4.5	13.0	5.9	8.9	9.3	11.6	10.2	8.8	7.9	9.45	9.1	9.6	9.35
3	9.6	5.8	3.8	11.5	5.8	8.6	9.0	11.8	11.7	8.9	8.3	9.72	8.8	9.0	8.90
4	10.9	5.2	5.7	12.1	2.9	8.8	9.2	13.3	13.9	10.2	8.3	10.62	8.8	9.3	9.05
5	14.4	7.5	6.9	23.8	7.3	8.1	8.7	13.8	17.3	11.1	9.4	11.40	8.7	10.1	9.40
6	13.8	7.3	6.5	21.9	6.4	9.2	8.8	17.4	16.8	13.3	9.2	12.45	9.7	11.1	10.40
7	18.1	6.3	11.8	26.2	4.7	8.3	8.7	20.6	25.8	16.7	8.2	14.72	10.0	12.8	11.40
8	17.0	6.1	10.9	22.4	4.1	4.4	6.1	18.2	25.1	13.9	7.8	12.58	10.6	12.1	11.35
9	16.4	7.2	9.2	20.8	5.8	6.1	6.1	20.4	18.9	11.1	8.3	11.82	10.3	11.5	10.90
10	11.8	6.3	5.5	15.7	6.2	8.2	8.7	13.0	14.6	10.6	8.8	10.65	10.2	10.8	10.50
11	10.3	4.7	5.6	10.7	4.2	7.8	7.3	11.0	13.3	10.9	8.3	9.77	9.7	10.0	9.85
12	17.5	5.0	12.5	21.0	4.2	6.8	5.2	17.3	24.5	12.3	8.7	12.47	10.5	10.8	10.65
13	18.3	7.6	10.7	26.2	6.7	9.6	8.9	16.5	22.8	13.8	8.1	13.28	9.7	11.8	10.75
14	21.2	7.2	14.0	26.2	6.0	6.6	8.2	20.7	24.9	15.6	10.4	14.40	10.1	12.8	11.45
15	17.4	5.3	12.1	21.3	4.8	8.6	6.2	14.9	22.6	10.1	8.6	11.83	10.8	11.5	11.15
16	9.8	4.3	5.5	14.4	4.3	6.3	5.8	13.6	12.2	9.8	8.8	9.42	9.6	9.0	9.30
17	10.3	8.2	2.1	10.6	8.2	....	....	10.2	....	10.1	9.8	....	9.0	9.3	9.15
18	9.8	2.7	7.1	10.8	1.5	9.1	9.2	10.2	10.0	6.1	4.4	8.17	9.2	8.8	9.00
19	12.9	0.8	12.1	19.0	98.2	1.7	1.0	13.8	22.3	6.3	1.6	7.78	7.2	9.0	8.10
20	13.9	2.2	11.7	21.1	99.8	0.6	0.6	13.3	23.3	7.8	2.6	8.03	6.2	8.0	7.10
21	8.5	3.1	5.4	8.2	2.0	3.8	4.8	7.6	8.4	7.8	8.4	6.80	6.0	7.0	6.50
22	10.2	4.9	5.3	10.8	4.9	8.5	6.2	10.6	10.9	7.7	7.8	8.62	7.0	7.8	7.40
23	9.5	3.8	5.7	9.6	1.1	7.5	7.2	9.0	10.1	7.1	7.1	8.00	7.5	8.1	7.80
24	12.8	3.6	9.2	17.1	1.4	2.8	3.7	11.8	15.6	9.6	5.1	8.10	6.7	8.0	7.35
25	13.8	2.8	11.0	21.8	97.0	4.4	3.9	13.7	23.2	8.6	1.7	9.25	7.0	8.5	7.75
26	17.0	2.3	14.7	24.3	95.2	0.5	99.2	19.9	19.1	9.0	1.5	8.20	6.2	8.0	7.10
27	17.8	2.8	15.0	27.5	97.9	0.2	98.9	17.1	15.2	7.8	3.8	7.17	6.0	7.5	6.75
28	13.7	2.7	11.0	20.1	0.0	1.9	1.3	16.1	15.0	7.9	2.2	7.40	6.3	7.3	6.80
29	13.8	3.3	10.5	21.0	98.4	2.9	4.7	13.3	20.3	9.1	1.8	8.68	6.0	7.5	6.75
30	19.6	4.6	15.0	28.7	0.0	0.1	0.4	24.9	27.4	11.1	4.1	11.33	5.7	8.0	6.85
31	19.8	4.6	15.2	29.9	1.9	2.0	2.5	23.3	20.0	6.8	5.0	9.93	6.2	8.0	7.10
平均 Mean	14.17	4.80	9.37	19.10	2.89	5.60	5.51	15.13	17.77	9.99	6.42	10.07	8.29	9.43	8.86
九月 September															
1	21.9	5.8	16.6	28.0	1.7	3.7	5.9	20.8	25.1	13.4	8.4	12.88	7.0	9.2	8.10
2	18.6	6.8	11.8	25.6	5.9	8.6	7.8	17.1	20.5	....	8.6	....	9.0	10.2	9.60
3	20.4	8.0	12.4	26.0	2.8	7.6	7.0	23.4	19.6	14.4	7.7	13.28	9.3	11.0	10.15
4	20.4	6.8	13.6	26.3	3.5	6.1	6.1	20.6	23.9	11.7	6.6	12.50	9.8	11.2	10.50
5	20.1	5.3	14.8	26.3	1.2	5.1	4.1	15.9	30.4	13.9	5.7	12.52	9.5	11.2	10.35
6	22.0	6.4	15.6	29.0	2.9	4.2	4.2	....	....	....	....	....	....	....	....
7	16.1	5.7	10.4	21.9	....	....	....	....	....	....	....	....	....	....	....
8	9.0	4.8	4.2	11.5	....	....	....	....	....	....	....	....	....	....	....
9	10.1	7.2	2.9	10.7	....	....	....	....	....	....	....	....	....	....	....
10	10.4	4.0	6.4	11.2	....	....	....	....	....	....	....	....	....	....	....
11	11.0	5.9	5.1	15.6	....	....	....	....	....	....	....	....	....	....	....
12	14.0	5.6	8.4	18.7	....	....	....	....	....	....	....	....	....	....	....
平均 Mean	16.17	5.98	10.19	20.90	3.00	5.62	5.77	20.17	24.75	13.35	7.10	12.79	8.92	10.56	9.74
四十三日間平均 43 days Mean	14.73	5.13	9.60	19.60	2.91*	5.60†	5.54†	15.74†	18.62†	10.40†	6.50†	10.40†	8.15‡	9.33‡	8.74‡

三十七日間平均 * 37 days Mean, 三十三日間平均 † 33 days Mean, 三十五日間平均 ‡ 35 days Mean.

明治廿四年八月御嶽山頂及黑澤同時觀測

SIMULTANEOUS OBSERVATIONS ON THE SUMMIT OF ONTAKE AND AT KUROSAWA, AUGUST, 1891.

御嶽山頂

水蒸氣之張力 (粍)

TENSION OF VAPOUR (mm)

on the Summit of Ontake.

月日 Date	午前二時 2 am	午前四時 4 am	午前六時 6 am	午前八時 8 am	午前十時 10 am	正午 Noon	午後二時 2 pm	午後四時 4 pm	午後六時 6 pm	午後八時 8 pm	午後十時 10 pm	夜半 M. N.	平均 Mean
八月 August													
1	3.0	2.8	3.1	2.9	5.4	5.1	6.4	6.0	6.1	6.1	8.0	8.0	5.24
2	8.1	8.3	8.7	8.7	9.1	8.6	8.7	7.5	7.6	7.2	8.0	8.2	8.22
3	8.1	8.5	8.4	8.2	8.4	8.7	8.5	8.1	7.1	7.5	7.6	7.5	8.05
4	8.0	8.0	8.5	8.7	9.1	8.6	8.5	8.7	7.5	5.7	6.5	8.2	8.00
5	8.0	8.1	8.1	9.0	8.7	9.2	9.9	8.5	8.5	8.1	8.0	8.0	8.51
6	8.3	8.2	8.0	8.0	7.5	9.6	9.8	10.0	8.6	8.3	7.7	7.9	8.49
7	8.1	8.2	7.9	9.3	9.5	9.3	9.9	8.6	7.9	8.1	4.8	3.6	7.93
8	3.4	6.1	6.1	7.1	6.2	7.2	7.8	6.3	6.9	5.7	5.1	5.3	6.10
9	4.9	5.3	5.6	6.2	8.7	8.4	9.1	8.2	6.8	5.2	8.0	8.2	7.05
10	8.0	8.1	8.1	8.4	8.4	9.0	8.9	9.0	8.2	8.3	7.9	8.0	8.36
11	7.5	6.4	7.1	8.2	8.4	8.7	8.9	9.0	8.5	7.4	8.0	7.6	7.97
12	6.9	5.9	5.4	6.4	8.3	7.9	8.2	7.1	7.9	7.3	8.0	8.5	7.32
13	8.5	8.0	8.1	8.1	8.5	10.0	9.5	9.2	7.6	6.9	6.8	6.4	8.13
14	6.1	6.6	8.2	7.4	8.7	9.3	10.0	9.2	9.1	8.3	8.7	5.5	8.09
15	5.0	5.4	6.5	4.4	5.2	7.5	8.1	8.8	6.2	6.4	8.1	6.4	6.50
16	7.1	7.8	6.9	7.7	8.2	8.2	8.5	8.2	8.3	7.8	8.2	8.8	7.97
17	8.7	8.7	8.7	9.0	8.4	9.0	8.7	8.8	8.5	8.8	9.0	8.6	8.74
18	8.5	8.7	8.5	8.6	8.7	9.0	8.7	8.8	8.3	5.3	6.3	4.7	7.84
19	3.8	3.0	4.1	3.5	6.6	4.8	5.3	6.4	3.3	1.5	2.6	1.9	3.90
20	1.8	1.3	1.1	2.9	3.2	3.4	5.9	5.1	2.6	1.4	0.9	1.7	2.61
21	1.5	6.4	6.7	6.4	7.6	8.0	8.0	7.5	7.9	7.8	7.9	8.2	6.99
22	8.3	7.4	6.7	7.2	8.1	9.1	8.3	7.6	7.6	7.7	7.8	7.7	7.79
23	7.5	7.1	7.6	7.9	8.5	8.4	8.0	7.4	6.6	5.5	6.4	5.2	7.17
24	5.3	5.4	5.7	6.0	6.8	8.1	7.6	7.0	5.7	5.9	5.9	5.6	6.25
25	5.1	5.4	5.8	5.8	5.2	6.9	8.0	6.5	3.9	4.0	3.9	2.0	5.21
26	1.5	2.3	1.9	3.7	4.9	7.4	7.2	6.9	3.4	2.8	1.1	1.0	3.67
27	1.1	0.8	1.1	3.8	7.2	6.3	6.9	5.8	6.2	5.9	4.4	2.2	4.31
28	3.4	3.1	5.3	6.2	6.2	6.7	7.1	6.8	5.8	3.8	3.3	6.2	5.32
29	6.1	6.5	6.4	6.7	7.6	4.8	6.7	6.6	4.8	2.3	0.1	0.3	4.91
30	0.1	3.9	1.9	1.9	5.5	7.1	6.9	7.3	4.3	5.4	0.5	0.5	3.77
31	2.1	2.0	2.5	4.3	5.9	8.0	8.2	8.1	4.0	3.6	4.0	3.1	4.65
平均 Mean	5.61	5.93	6.09	6.53	7.38	7.82	8.13	7.71	6.63	6.00	5.92	5.64	6.62
九月 September													
1	5.6	5.6	6.2	6.4	8.4	8.7	8.3	8.4	8.2	7.5	8.0	8.2	7.46
2	8.2	8.1	7.4	8.5	8.9	9.1	9.3	8.8	8.6	8.1	7.8	7.5	8.36
3	7.7	7.2	6.7	7.4	8.9	9.6	9.3	9.4	8.8	7.2	6.1	6.3	7.88
4	4.8	4.3	6.2	6.6	8.1	9.8	8.7	8.7	7.2	5.2	4.7	4.7	6.58
5	5.3	3.9	4.3	6.2	4.9	6.2	7.1	7.7	6.1	5.9	4.2	4.1	5.49
6	3.8	6.5	7.0	7.9	7.8	9.2	8.6	8.7	5.5	5.4	5.9	3.0	6.61
7	2.5	2.3	3.1	4.0	3.7	6.3	6.2	4.3	3.8	3.6	4.0	6.3	4.17
8	7.2	7.3	6.6	6.6	7.7	7.6	7.8	6.8	7.3	7.0	7.4	8.0	7.27
9	7.9	8.1	8.4	8.7	8.9	9.1	9.0	8.8	8.1	8.4	8.5	7.9	8.48
10	7.8	7.8	7.2	5.4	4.8	7.7	8.1	8.7	9.1	9.2	9.3	7.9	7.75
11	8.0	7.8	8.8	8.5	9.1	9.0	9.0	8.8	8.1	7.2	8.1	7.5	8.32
12	7.4	7.1	6.9	7.9	9.5	10.2	7.7	8.1	8.3	8.3	8.7	8.5	8.22
平均 Mean	6.35	6.33	6.57	7.01	7.56	8.54	8.26	8.10	7.42	6.92	6.89	6.66	7.22
四十三日間平均 43 days Mean	5.81	6.04	6.22	6.66	7.43	8.02	8.17	7.82	6.86	6.26	6.19	5.93	6.78

明治廿四年八月御嶽山頂及黒澤同時觀測

SIMULTANEOUS OBSERVATIONS ON THE SUMMIT OF ONTAKE AND AT KUROSAWA, AUGUST, 1891.

御嶽山頂

濕度 (%) 及雨量 (粍)

RELATIVE HUMIDITY (%) AND PRECIPITATION (mm) on the Summit of Ontake.

月 日 Date	濕度 RELATIVE HUMIDITY													雨量 PRECIPITATION						
	午前二時 2 am	午前四時 4 am	午前六時 6 am	午前八時 8 am	午前十時 10 am	正午 Noon	午後二時 2 pm	午後四時 4 pm	午後六時 6 pm	午後八時 8 pm	午後十時 10pm	夜半 M.N.	平均 Mean	午前二時 2 am	午前六時 6 am	午前十時 10 am	午後二時 2 pm	午後六時 6 pm	午後十時 10pm	合計 Sum
八月 August																				
1	42	43	48	35	54	38	40	49	70	81	100	100	58.3	0.2	—	—	—	—	0.5	0.7
2	100	100	100	100	100	100	100	100	100	100	100	100	100.0	1.4	1.4	4.8	43.4	12.9	0.4	64.3
3	100	100	100	100	100	100	100	100	100	100	100	100	100.0	2.9	4.0	0.7	2.0	—	1.3	10.9
4	100	100	100	100	100	100	100	100	100	82	91	100	97.7	2.8	15.4	32.9	0.9	6.5	—	58.5
5	100	100	100	100	95	84	100	100	100	100	100	100	98.2	3.4	0.9	0.8	0.0	17.2	2.2	24.5
6	100	100	100	100	100	100	100	100	100	98	98	100	99.7	0.8	4.7	0.7	8.7	2.0	—	16.9
7	100	100	100	90	82	67	71	68	85	98	62	49	81.0	0.4	0.9	—	—	1.4	0.2	2.9
8	47	86	77	70	55	60	60	53	70	66	63	66	64.4	—	—	—	—	—	—	—
9	57	64	69	68	65	68	76	77	76	64	99	100	73.6	—	—	—	—	—	—	—
10	100	100	100	100	100	97	93	100	99	100	100	100	99.1	0.6	0.6	0.2	—	5.7	0.1	7.2
11	100	97	100	100	100	100	100	100	100	97	100	100	99.5	0.7	—	0.9	1.3	0.0	0.1	3.0
12	97	94	76	81	71	61	63	66	92	89	100	100	82.5	0.7	—	—	—	—	—	0.7
13	100	100	100	100	86	70	73	75	87	78	82	79	85.8	1.2	1.0	—	—	—	—	2.2
14	74	82	99	73	66	61	64	72	89	90	99	63	77.7	—	—	—	—	—	0.5	0.5
15	60	66	76	43	46	56	63	83	71	80	100	90	69.5	—	—	—	—	—	—	—
16	93	100	97	97	100	95	100	100	100	100	100	100	98.5	0.2	0.1	—	—	0.7	2.7	3.7
17	100	100	100	100	100	100	100	100	100	100	100	100	100.0	25.9*	26.0*	26.0*	6.7	6.1	15.5	106.2
18	100	100	100	100	100	100	100	100	96	89	100	83	97.3	9.5	19.3	9.9	14.5	8.4	·	61.6
19	71	60	76	50	82	48	56	77	53	23	41	31	55.6	—	—	—	—	—	—	—
20	32	23	16	34	30	32	49	61	40	21	14	29	31.7	—	—	—	—	—	—	—
21	25	100	100	100	100	100	100	100	100	100	100	100	93.7	—	0.4	10.2	40.7	22.2	36.1	109.6
22	100	100	100	100	100	100	100	100	100	100	100	100	100.0	58.9	14.5	3.3	6.4	7.5	8.1	98.7
23	100	100	100	100	100	100	100	100	100	83	94	83	96.7	6.7	4.4	7.9	5.0	4.1	—	28.1
24	84	87	88	83	81	80	81	81	86	91	93	85	85.0	—	—	—	—	0.0	—	0.0
25	84	92	98	87	65	72	70	70	55	62	60	33	70.7	—	—	—	—	—	—	—
26	26	41	31	41	43	65	68	70	48	44	17	16	42.5	—	—	—	—	—	—	—
27	18	12	16	39	67	51	74	71	88	86	74	36	52.7	—	—	—	—	—	—	—
28	56	53	84	94	61	73	81	82	80	56	50	99	72.4	—	—	—	—	—	—	—
29	99	100	100	100	95	74	66	70	63	33	2	4	67.2	—	—	—	—	—	—	—
30	2	59	25	20	35	45	50	63	53	73	7	6	36.5	—	—	—	—	—	—	—
31	28	28	31	38	40	60	74	84	45	47	46	36	46.4	—	—	—	—	—	—	—
平均 Mean	74.0	80.2	80.9	78.8	78.0	76.0	79.7	83.0	82.1	78.4	77.2	73.8	78.5	116.3	93.6	98.3	129.6	94.7	67.7	600.2
九月 September																				
1	79	80	81	74	63	53	60	70	93	95	99	100	78.9	—	—	—	—	0.0	—	0.0
2	100	100	93	100	86	68	69	80	93	95	90	86	88.3	—	0.4	—	—	0.0	—	0.4
3	92	85	79	72	56	73	73	73	83	81	69	74	75.8	—	—	—	0.0	—	—	0.0
4	55	50	72	60	56	64	64	85	76	62	57	63	63.7	—	—	—	—	—	—	—
5	70	54	62	83	55	41	44	62	69	75	54	50	59.9	—	—	—	—	—	—	—
6	48	83	85	64	51	60	57	64	61	68	79	40	63.3	—	—	—	—	—	—	—
7	33	30	41	48	27	56	56	47	45	47	55	81	47.4	—	—		0.0	0.0	—	0.0
8	100	100	96	85	100	100	100	100	100	100	100	100	98.4	0.0	0.3		1.2	0.4	2.5	4.4
9	100	100	100	100	100	100	100	100	100	100	100	100	100.0	19.0	50.2	49.8	15.0	3.6	4.1	141.7
10	100	100	100	78	64	100	100	100	100	100	100	100	95.2	2.4	1.4	0.2	0.5	2.7	7.4	14.6
11	100	100	100	100	100	95	100	100	100	97	100	100	99.3	3.8	1.5	0.8	—	—	0.2	6.3
12	100	100	97	97	87	95	71	88	100	100	100	100	94.6	0.4	—	—	—	—	0.2	0.6
平均 Mean	81.4	81.8	83.8	80.1	70.4	75.4	74.5	80.7	85.0	85.0	83.6	83.1	80.4	25.6	53.8	50.8	16.7	6.7	14.4	168.0
四十三日間平均 43 days Mean	76.1	80.7	81.7	79.2	75.9	75.9	78.3	82.3	82.9	80.3	79.0	76.4	79.0	141.9	147.4	149.1	146.3	101.4	82.1	768.2

午前十時ニ測リシモノヲ分配ス　* distributed amount of those measured at 10a.

明治廿四年八月御嶽
SIMULTANEOUS OBSERVATIONS ON THE SUMMIT

御嶽

風向及

DIRECTION AND VELOCITY on the Summit

月日 Date	午前二時 2 am 方向 Dir.	午前二時 2 am 速度 Vel.	午前四時 4 am 方向 Dir.	午前四時 4 am 速度 Vel.	午前六時 6 am 方向 Dir.	午前六時 6 am 速度 Vel.	午前八時 8 am 方向 Dir.	午前八時 8 am 速度 Vel.	午前十時 10 am 方向 Dir.	午前十時 10 am 速度 Vel.	正午 Noon 方向 Dir.	正午 Noon 速度 Vel.
八月 August												
1	S	17.5	NNW	13.2	NW	12.2	NW	9.7	W	7.2	WNW	2.5
2	W	14.5	SW	15.5	SW	12.7	WNW	12.2	NNW	10.7	WSW	13.2
3	W	11.0	WSW	11.4	W	14.5	SW	18.7	SW	21.2	SSW	19.7
4	SSW	33.6	SSW	16.1	WSW	11.2	SW	10.2	SW	13.8	SW	12.6
5	W	10.7	W	7.7	W	3.7	SW	5.9	W	7.7	SW	2.2
6	SW	10.2	W	4.0	SW	7.5	SW	6.5	SSE	2.9	SSW	4.9
7	SW	11.1	SW	12.7	W	11.1	W	4.0	SW	4.2	W	4.2
8	WNW	14.1	NW	15.7	N	6.8	N	4.7	NNW	6.7	N	6.8
9	NW	7.4	WSW	14.0	W	10.7	W	7.8	SSW	2.6	W	2.6
10	SW	15.5	SW	13.9	WSW	10.6	WSW	12.2	W	13.7	NW	8.4
11	W	16.7	W	18.6	WNW	23.3	WSW	23.2	W	17.5	WSW	13.8
12	WSW	17.1	WSW	22.2	WSW	17.2	WSW	14.3	WSW	7.4	W	6.6
13	NW	17.3	NW	19.2	NW	23.7	NW	22.3	NW	12.5	WNW	4.9
14	SW	13.2	W	20.7	W	18.2	WNW	11.2	W	7.4	WSW	4.8
15	SW	8.0	W	7.0	WSW	8.9	SW	11.1	SW	12.2	SW	8.7
16	S	18.2	S	16.4	S	25.6	S	23.0	S	20.3	S	18.8
17	SW	30.3	SW	25.0	W	22.1	W	24.6	WNW	25.7	WNW	23.5
18	W	14.3	W	11.6	WSW	18.1	WSW	16.5	WSW	21.7	WSW	22.3
19	WNW	22.5	WNW	22.0	WNW	23.2	NW	14.4	WNW	17.8	NW	5.2
20	W	12.2	WNW	16.1	WNW	18.2	WNW	15.1	W	6.5	WNW	6.5
21	SW	12.0	SW	16.4	SW	13.0	SW	12.1	W	16.2	W	14.4
22	WSW	9.4	WNW	24.7	W	20.7	W	10.4	W	6.2	WSW	8.5
23	W	17.7	W	17.1	WSW	12.4	W	9.6	WSW	4.8	WSW	8.4
24	W	15.3	WNW	11.6	W	13.7	WNW	13.4	SSW	6.2	W	7.2
25	W	15.3	W	14.6	WNW	14.4	WNW	14.6	WNW	8.1	SW	4.1
26	NW	18.1	WNW	20.7	NNW	8.6	SSW	3.2	NE	2.0	W	0.8
27	WNW	8.2	NNW	8.7	NW	8.4	NW	1.2	WNW	1.8	SSE	2.2
28	WSW	14.2	W	16.5	W	18.2	W	10.4	W	4.5	WSW	3.7
29	WNW	20.5	WNW	21.9	NW	17.7	NW	18.7	NNW	11.1	N	7.4
30*	NW	16.5	W	11.9	N	9.7	W	4.4	N	1.4	NNW	1.4
31	NW	17.2	NW	14.2	NW	12.2	ENE	2.2	ENE	1.9	ESE	1.9
平均 Mean		15.48		15.53		14.47		11.86		9.82		8.14
九月 September												
1	W	9.2	W	12.2	WNW	16.7	WNW	13.7	W	4.7	NNE	1.9
2	W	14.9	W	11.6	W	13.2	NNW	10.2	WNW	7.7	NNE	2.0
3	WNW	8.2	W	16.2	WNW	13.3	W	6.7	W	2.1	W	2.7
4	W	6.8	SW	5.2	WSW	5.9	WSW	7.3	SW	4.9	NNW	3.4
5	W	17.3	W	21.3	WNW	23.6	NNW	18.7	NW	15.7	W	3.1
6	W	7.2	W	10.1	NW	7.7	NNW	0.9	NE	0.6	W	2.0
7	WSW	12.3	W	10.3	WSW	6.8	WSW	7.0	WNW	6.5	NW	7.1
8	SW	9.1	SW	12.6	WSW	12.2	WSW	8.7	SW	7.8	W	7.7
9	SW	17.9	W	12.7	W	13.5	W	12.7	W	14.4	W	13.2
10	SSW	16.6	SSW	25.2	SSW	25.2	SSW	29.0	SSW	26.7	SW	18.4
11	SW	11.8	SW	12.0	SW	10.8	SW	10.6	SSW	14.3	SW	13.3
12	SSW	18.6	S	17.7	S	16.8	SSW	14.1	SSW	8.7	SSE	6.3
平均 Mean		12.49		13.92		13.81		11.63		9.51		6.76
四十三日間平均 43 days Mean		14.64		15.08		14.28		11.80		9.73		7.75

山頂及黒澤同時觀測

OF ONTAKE AND AT KUROSAWA, AUGUST, 1891.

山頂

速度 (毎秒時)

OF WIND (m.p.s.)

of Ontake.

午後二時 2 pm		午後四時 4 pm		午後六時 6 pm		午後八時 8 pm		午後十時 10 pm		夜半 M. N.		平均 Mean	廿四時間全速度 Total course in 24 hrs.
方向 Dir.	速度 Vel.	方向 Dir.	速度 Vel.	方向 Dir.	速度 Vel.	方向 Dir.	速度 Vel.	方向 Dir.	速度 Vel.	方向 Dir.	速度 Vel.		
W	1.4	W	5.5	W	10.2	W	11.2	W	10.3	WSW	20.3	10.10	196.9
W	12.0	W	18.5	NW	18.2	W	16.2	NW	12.3	NW	11.5	13.96	1277.1
SSW	15.6	SSW	16.7	SW	32.7	SSW	35.2	SSW	37.3	SSW	31.7	22.14	1865.1
SW	11.1	SW	13.0	W	14.6	WSW	21.0	W	15.9	WSW	9.7	15.23	1221.8
SW	5.1	SW	8.7	W	6.7	SW	8.0	W	13.9	SW	13.2	7.79	639.6
WSW	5.6	SW	2.8	W	8.7	WSW	3.7	W	8.6	SW	10.6	6.33	550.5
N	2.0	N	2.2	WNW	7.2	W	6.4	NW	8.9	W	11.9	7.16	611.0
NNW	8.1	NW	4.9	N	1.7	N	2.3	N	3.3	N	6.0	6.76	607.9
NW	2.3	NW	2.7	SW	3.8	W	7.2	WSW	11.1	SW	12.9	7.09	562.1
WSW	8.8	WSW	6.5	W	11.3	NNW	11.6	WSW	11.2	W	15.7	11.62	965.6
W	11.0	WNW	11.2	WNW	13.8	WNW	15.7	W	12.1	W	18.7	16.30	1355.7
WNW	4.9	WNW	11.0	WNW	14.3	W	16.4	WSW	17.8	WSW	17.0	13.85	1137.8
NW	5.7	N	3.7	NW	5.6	NW	9.6	W	9.6	W	13.4	12.29	1067·7
N	2.3	W	3.3	WNW	7.1	W	11.5	W	10.7	WSW	10.6	10.08	841.7
SSW	6.1	SSW	8.2	SSW	12.5	SW	13.9	SW	15.1	SW	16.5	10.68	908.1
S	31.7	SSE	27.3	S	22.7	S	23.0	S	27.1	SW	33.5	23.97	2036.0
W	22.6	W	15.2	W	13.2	W	11.7	W	6.5	W	13.7	19.52	1859.4
WSW	16.0	WSW	9.8	WSW	16.8	W	17.6	W	25.7	WNW	23.3	17.81	1505.8
WNW	4.2	WNW	6.1	W	4.2	W	14.3	WNW	14.4	WNW	16.6	13.74	1311.1
WSW	2.2	WSW	4.2	WSW	6.4	WSW	11.2	SW	8.4	SW	11.8	9.90	851.2
W	16.5	W	16.9	W	21.8	W	15.8	NNW	14.1	NW	16.1	15.44	1366.6
W	9.2	W	12.1	SW	10.8	SW	11.8	WSW	10.8	WSW	14.7	12.44	1129.7
WSW	8.0	WSW	8.6	NW	11.1	WNW	7.9	W	8.5	WSW	12.4	10.54	968.2
SW	3.0	W	5.2	W	9.1	W	13.1	W	15.2	W	17.0	10.83	883.9
SSW	2.8	NW	1.6	WSW	2.0	W	5.7	W	6.8	W	11.3	8.44	757.2
SSW	0.8	W	0.7	NE	2.2	N	4.9	NNW	5.2	NW	6.1	6.11	506.3
WSW	2.1	S	2.8	SSE	2.4	S	4.2	SW	10.2	WSW	5.9	4.84	410.8
W	3.8	WNW	4.5	NW	13.1	WNW	15.4	NW	22.5	NW	18.2	12.08	983.2
N	7.6	N	4.1	W	1.7	NW	8.0	WNW	12.2	NW	15.2	12.17	1031.7
WNW	2.6	W	2.2	W	1.7	W	5.4	NW	12.8	NW	23.8	7.82	606.8
WSW	2.2	W	2.2	WNW	0.8	NNW	3.0	W	7.6	W	3.0	5.70	492.3
	7.65		7.82		9.95		11.71		13.10		14.89	11.70	984.15
NNW	3.7	NW	4.1	WNW	10.6	WNW	12.2	W	12.2	W	10.8	9.33	778.1
N	2.2	W	4.5	NNW	6.5	NW	11.8	NW	13.8	NW	9.7	9.01	844.1
WNW	2.4	WSW	1.4	W	0.5	SSW	2.7	W	4.2	WNW	7.0	5.62	506.0
N	4.2	W	6.0	NNW	4.3	WSW	7.8	WSW	12.4	WSW	14.0	6.85	561.6
SW	1.6	SW	2.0	NNW	6.9	NW	10.0	NW	8.7	W	10.1	11.58	950.3
W	2.5	ESE	1.2	SSW	1.8	W	6.8	W	5.2	W	8.1	4.51	374.3
WSW	5.2	W	13.5	W	12.6	W	18.0	W	22.3	SW	9.7	10.94	992.9
SW	7.9	SW	10.6	SSW	15.5	SSW	23.4	SSW	14.6	SW	19.5	12.47	1037.3
W	12.1	WSW	14.7	WSW	9.4	SW	6.2	SSW	12.8	SSW	15.0	12.88	1222.5
SW	15.2	SW	15.2	SW	14.0	SW	13.1	WSW	12.4	SW	14.7	18.81	1635.4
SW	11.9	SSW	15.6	SSW	16.0	SSW	19.4	SSW	18.2	SSW	17.7	14.30	1239.7
S	6.3	S	10.8	S	9.7	SSE	7.6	SE	9.2	SE	11.2	11.42	1037.9
	6.27		8.30		8.98		11.58		12.17		12.29	10.64	931.67
	7.27		7.95		9.68		11.67		12.84		14.17	11.41	969.51

明治廿四年八月御嶽

SIMULTANEOUS OBSERVATIONS ON THE SUMMIT

御嶽

雲量及

AMOUNT AND

on the Summit

月日 Date	午前二時 2 am 量 Amount	形 Form	午前四時 4 am 量 Amount	形 Form	午前六時 6 am 量 Amount	形 Form	午前八時 8 am 量 Amount	形 Form	午前十時 10 am 量 Amount	形 Form	正午 Noon 量 Amount	形 Form
八月 August												
1	0	—	0	—	0	—	0	—	0	—	1	c
2	10	fog	10	fog	10	fog	10	fog	10	fog	10	fog
3	10	fog	10	fog	10	fog	10	fog	10	fog	10	fog
4	10	fog	10	fog	10	fog	10	fog	10	fog	10	fog
5	10	fog	10	fog	9	ck,cs	10	fog	10	s,ck	8	ck,c
6	10	fog	10	fog	10	fog	8	cs,s,ck	10	fog	10	fog
7	10	fog	10	fog	8	cs,s	9	ck,s	7	ck,c	5	c,ck
8	0	—	0	—	0	—	3	c,cs,s	8	cs,c,ck	7	cs,ck
9	0	—	0	—	3	c	6	c,cs	9	c,k	10	ks,cs
10	10	fog	10	fog	10	fog	10	fog	10	fog	10	fog
11	10	fog	10	fog	10	ks	10	fog	10	fog	10	fog
12	0	—	0	—	5	cs,ks	1	ck,cs	1	c	0	cs,ks
13	10	fog	10	fog	10	fog	10	fog	3	ck,cs	6	c,ks
14	0	cs	2	cs,s	2	c,ks	0	cs,ks	6	c,ks	9	c,ks,ck
15	0	—	0	—	0	c	0	—	0	c	0	cs,ks
16	0	—	10	fog	0	cs,ks	10	fog	10	fog	10	fog
17	10	fog	10	fog	10	fog	10	fog	10	fog	10	fog
18	10	fog	10	fog	10	fog	10	fog	10	fog	10	fog
19	10	ks	0	s	0	—	0	cs	0	—	0	k
20	2	c,cs	1	cs	1	c,cs	2	c,cs	10	c,cs	10	cs
21	10	fog	10	fog	10	fog	10	fog	10	fog	10	fog
22	10	fog	10	fog	10	fog	10	fcg	10	fog	10	fog
23	10	fog	10	fog	10	fog	10	fog	10	fog	10	fog
24	4	cs,ck,c	10	ck,s	9	ck	10	ck,ks,s	10	s,ks	10	s,ks
25	10	ck,s	10	cs,s	10	fog	8	c,cs,s	10	cs,s,k	10	s,ks
26	0	—	0	—	0	cs	0	s	1	k	10	s,fog
27	0	—	0	—	0	c	4	c	4	ks	10	ks,fog
28	9	s,ks,cs	3	s,c	10	fog	10	fog	10	ks,k,c,fog	10	s,ks
29	10	fog	10	fog	10	ck,s,fog	10	fog	10	fog	10	ks,k,fog
30	0	—	0	—	10	ck,s	8	ck,s	3	c,cs,s	6	ck
31	0	—	0	—	1	c	0	c	1	ks,k	10	ks
平均 Mean	6.0		6.0		6.4		6.7		7.2		8.1	
九月 September												
1	0	—	0	—	1	c	0	cs,k	9	s,fog	9	ks,k
2	10	fog	9	fog	7	c,cs	10	fog	10	fog	10	ks,k,fog
3	0	—	0	—	3	cs	3	cs	5	c,ks,cs	10	fog
4	0	—	0	—	0	c,cs	1	c,cs	0	—	10	ks,fog
5	0	—	0	—	0	—	0	—	0	—	0	—
6	0	—	0	—	0	cs	0	ks	0	ks	10	ks
7	0	s	2	s	9	ck,cs	7	cs,c,ck	9	ck,cs	10	cs,ck
8	10	fog	10	fog	10	s,ks	10	s,ks	10	fog	10	fog
9	10	fog	10	fog	10	fog	10	fog	10	fog	10	fog
10	10	fog	10	fog	10	fog	10	ck,cs	10	cs,ck	10	fog
11	10	fog	10	fog	10	fog	10	fog	10	fog	10	fog
12	10	fog	4	ks	0	ks	0	ks	10	fog	10	fog
平均	5.0		4.6		5.0		5.1		6.9		9.1	
四十三日間平均 43 days Mean	5.7		5.6		6.0		6.3		7.1		8.4	

山頂及黒澤同時觀測

OF ONTAKE AND AT KUROSAWA, AUGUST, 1891.

山頂

形狀

FORM OF CLOUD

of Ontake.

午後二時 2 pm		午後四時 4 pm		午後六時 6 pm		午後八時 8 pm		午後十時 10 pm		夜半 M. N.		平均 Mean
量 Amount	形 Form	量 Amount	形 Form	量 Amount	形 Form	量 Amount	形 Form	量 Amount	形 Form	量 Amount	形 Form	
2	c	1	cs,c	6	c,cs	0	—	10	fog	10	fog	2.5
10	fog	10	fog	10	fog	10	fog	10	fog	10	fog	10.0
10	fog	10	fog	10	fog	10	fog	10	fog	10	fog	10.0
10	fog	10	fog	10	fog	1	c,ck	0	—	10	fog	8.4
10	fog	10	fog	10	fog	10	fog	10	fog	10	fog	9.7
10	fog	10	fog	9	cs	10	fog	0	—	0	—	8.1
1	c	0	—	10	n,fog	1	ks	1	s	1	cs,s	5.2
8	c,ks,k	6	c,ck,k	7	c,cs,k	0	—	0	—	0	—	3.2
10	ks	10	ks	0	cs	0	—	0	—	10	fog	4.8
10	fog	10	fog	10	fog	10	fog	10	fog	10	fog	10.0
10	fog	10	fog	10	fog,ck,c	9	s,cs	10	fog	10	fog	9.9
9	c,cs,k	8	cs,c,ks	5	c,cs,k	1	cs	10	fog	10	fog	4.2
10	ks	10	ks	8	cs,c,k	7	cs	4	cs,c	0	s	7.3
9	ks,c	10	ks	2	c,k	6	ks	0	s	0	ks	3.8
10	fog	10	fog	0	--	0	—	10	fog	0	—	2.5
10	fog	10	fog	10	fog	10	fog	10	fog	10	fog	8.3
10	fog	10	fog	10	fog	10	fog	10	fog	10	fog	10.0
10	fog	10	fog	9	c,cs,s	2	c,ks	10	fog	10	ks	9.2
0	cs,k	1	c,k	1	cs	0	cs,ks	4	c,ck,cs	2	c,cs	1.5
5	c,cs	8	c,es	8	c,cs	9	cs	10	cs,ks	10	ck	6.3
10	fog	10	fog	10	fog	10	fog	10	fog	10	fog	10.0
10	fog	10	fog	10	fog	10	fog	10	fog	10	fog	10.0
10	fog	10	fog	10	s,ks	1	s	9	ck	1	cs,s	8.4
10	ks,s	10	n	10	s	10	ks,s	10	s	9	s	9.3
8	k,c	6	c,cs	2	c,cs,k	0	—	0	--	0	—	6.2
10	ks	1	ks,k	0	cs,k	0	—	0	—	0	—	1.8
10	ks,fog	10	ks,k,cs	4	c,cs,k	0	c,s	0	—	6	ck,cs	4.0
10	s,fog	8	k,ks	3	c,s	0	-	0	—	0	—	6.1
10	k,cs	6	ks,k	8	ck,c	0	s	0	—	0	--	7.0
3	ck,k	8	ck,fog	0	c,k	0	—	0	—	0	—	3.2
10	fog	10	ks,fog	0	k,s	0	--	0	—	0	—	2.7
8.5		8.2		6.5		4.4		5.4		5.4		6.6
10	ks	2	ck,k	10	fog,c,k	0	—	0	s	10	fog	4.2
.10	s,ks	10	ck,c	10	fog	0	—	0	—	0	—	7.2
10	ks,k,c	10	ks	7	ks,k,ck	0	s	0	—	0	—	4.0
10	ks,fog	9	ks,k	0	ks	0	—	0	—	0	-	2.5
0	—	8	ks	0	--	0	—	0	—	0	—	0.7
10	ks	7	ks	0	k	0	—	0	—	0	s	2.2
10	cs,ck	10	s,cs,ck	10	s,cs	8	s,cs	9	s,cs	10	n	7.8
10	fog	10	fog	10	fog	10	fog	10	fog	10	fog	10.0
10	fog	10	fog	10	fog	10	fog	10	fog	10	fog	10.0
10	fog	10	fog	10	fog	10	fog	10	fog	10	fog	10.0
10	fog	10	fog	10	fog	0	—	10	fog	10	fog	9.2
8	ks	.8	ks,ck	0	ck,s,k	10	fog	10	fog	10	fog	6.7
9.0		8.7		6.4		4.0		4.9		5.8		6.2
8.7		8.3		6.5		4.3		5.3		5.6		6.5

明治廿四年八月御嶽山頂及黑澤同時觀測
SIMULTANEOUS OBSERVATIONS ON THE SUMMIT OF ONTAKE AND AT KUROSAWA, AUGUST, 1891.

御嶽山頂
記事

REMARKS
on the Summit of Ontake.

月日 Date	午前二時 2 am	午前四時 4 am	午前六時 6 am	午前八時 8 am	午前十時 10 am	正午 Noon	午後二時 2 pm	午後四時 4 pm	午後六時 6 pm	午後八時 8 pm	午後十時 10 pm	夜半 M. N.
九月 August												
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2	═, /	═, /	═, /	═, ●, /	═, ●, /	═, ●, K SW	═, ●, /	═, ●, /	═, ●°, /	═, /	═, /	═, ●, /
3	═, ●°, /	═, ●, /	═, ●, /	═, /	═, ●, /	═, ●, /	═, /	═, /	═, /	═, /	═, /	═, /
4	═, ●^{2}, /	═, ●, /	═, ●, /	═, ●, /	═, /	═, /	═, ●°, /	═, ●, /	═, /	/	/	═, ●
5	═, ●, /	═, ●, /	—	═, ●	—	—	═, ●, T	═, ●, T	═	═	═, /	═°, /
6	═, /	═	═, ●	—	═	═, ●	═	═, ⌒	—	═	—	/
7	═, /	═, /	/	—	—	—	—	K NW	═, ●, K	═, <NE, SW	<SW	/
8	/	/	-	—	—	—	—	— ⌊4.15p	—	⌓^{3}	—	—
9	—	/	/	—	—	—	—	—	—	<ENE	═°, /	●, ═, /
10	═, /	═, /	═, /	═, ●, /	═, /	═	═, ●, △	═, ●	═, ●, /	═, ●, /	═, <NE, /	═, /
11	═, /	═, T SE, /	═, /	/, ═	═, /	═, /	═, /	═, /	═, /	/	═, ●, /	═, /
12	/	/	/	/	-	—	—	/	/	/	═, /	═, /
13	═, /	═, /	═, /	═°, /	/		—	—	-	Ⴎ, <ENE	— [T S, /	/
14	/	/	/	/	—	—	—	T N	—	<NE, T SW,	<NE, ●, Ⴎ	/
15	—	—	—	/	/		═	═	/	/ ⌊/	═, /, Ⴎ	/
16	/	═, /	/	═°, /	═, /	═°, /	═, /	═, /	═, ●, /	═, ●, /	═, ●, /	═, ●, /
17	═, ●, /	═, ●, /	═, ●, /	═, ●, /	═, ●, /	═, ●, /	═, ●, /	═, ●, /	═, ●, K SW,	═, ●, K SW,	═, ●	═, ●, /
18	═, ●, /	═, ●, /	═, ●, /	═, ●, /	═, ●, /	═, ●, /	═, ●, /,	═, ●	/ ⌊/	<NE, / ⌊/	═°, Ⴎ, /	Ⴎ, /
19	Ⴎ, /	/	/	/	/	—	—⌊K SW	—	—	/	/	/
20	/	/	/	/	○	○	—	—	—	/	—	Ⴎ, /
21	═, /	═, /	═, ●, /	═, ●, /	═, ●, /	═, ●, /	═, ●, /	═, ●, /	═, ●, /	═, ●, /	═, ●, /	═, ●, /
22	═, ●	═, ●, /	═, ●, /	═, ●, /	═, ●	═, ●	═, ●	═, ●, /	═, ●, /	═, ●, /	═, ●, /	═, ●, /
23	═, ●, /	═, ●, /	═, ●, /	═, ●	═, ●	═, ●	═, ●	═, ●	/	—	⌓°	Ⴎ, /
24	/	/	/	/	—	—	—	●	—	/	/	/
25	/	/	═, /	/	—	—	—	—	—	⌓°	—	/
26	<S, /	<S, /	—	—	—	═	—	—	<NE	—	—	—
27	—	—	—	—	—	═	═	—	⌓°	⌓°	/	—
28	/	/	═, /	═, /	═	—	═°	—	/	/	/	⌓°, /
29	═, /	═, ⌓°, /	═, /	═, /	═, /	═	—	—	—	—	/	/
30	/	/	—	—	—	—	—	—	—	—	/	/
31	/	/	/	—	—	—	═	═	—	—	—	—
九月 September												
1	—	⌓°, /	/	/	═	—	—	●° .	═, /	/	⌓^{2}, /	═, ⌓^{2}, /
2	═, /	═, /	/	═, /	═	═°	T WNW,	T SE, NE	═°, <E	⌓^{2}, /	⌓^{2}, /	—
3	—	/	/	—	—	═°	●° ⌊●°	T S	—	⌓°	—	—
4	—	—	—	—	—	═°	═°	—	—	—	/	/
5	/	/	/	/	/	—	—	—	—	⌓°, /	—	/
6	—	/	—	—	—	—	—	—	—	—	—	—
7	/	/	—	—	—	—	●°	/	●°, /	/	/	●
8	═, ●	═, ●, /	●, ⌒, /	—	═	═, ●	═, ●	═, /	●, ═, /	═, ●, /	═, ●, /	═, ●, /
9	═, ●, /	═, ●, /	═, ●, /	═, ●, /	═, ●, /	═, ●, /	═, ●, /	═, /	═	═, ●, <SW	═, ●, /	═, ●, /
10	═, ●, /	═, ●, /	═, ●, /	/	○, /	═, /	═, ●, /	═, ●, /	═, ●, /	═, ●, /	═, ●, /	═, ●, /
11	═, ●, /	═, ●, /	═, ●, /	═°, /	═°, /	═°, /	═, /	═°, /	═°, /	/	═, /	═°, /
12	═, /	/	/	/	═	═°	—	/	—	═	═, ●°	═, ●°, /

明治廿四年八月御嶽山頂及黒澤同時観測

SIMULTANEOUS OBSERVATIONS ON THE SUMMIT OF ONTAKE AND AT KUROSAWA, AUGUST, 1891.

黒　澤
晴雨計 (粍)

BAROMETER (mm)

at Kurosawa.

月日 Date	午前二時 2 am	午前四時 4 am	午前六時 6 am	午前八時 8 am	午前十時 10 am	正午 Noon	午後二時 2 pm	午後四時 4 pm	午後六時 6 pm	午後八時 8 pm	午後十時 10 pm	夜半 M. N.	平均 Mean
八月 August	+600	+600	+600	+600	+600	+600	+600	+600	+600	+600	+600	+600	+600
1	91.5	91.8	92.3	92.2	91.5	91.1	90.5	90.6	90.9	91.9	92.6	92.6	91.62
2	92.3	92.3	92.2	91.7	91.7	91.4	91.2	92.6	92.4	93.3	93.6	93.7	92.37
3	93.6	93.5	93.6	93.6	93.3	92.8	92.0	91.7	91.6	92.2	93.4	92.0	92.77
4	91.1	90.9	91.3	91.0	91.2	91.0	90.9	90.8	90.9	91.2	91.8	91.6	91.13
5	91.6	91.6	91.7	92.4	91.9	91.7	91.0	91.5	91.8	92.4	92.9	92.7	91.93
6	92.6	92.7	93.0	93.1	92.5	92.2	91.7	91.9	91.8	92.3	92.6	92.6	92.42
7	92.6	92.5	92.6	92.4	92.0	91.3	91.0	90.7	90.9	91.6	92.0	92.2	91.82
8	92.2	92.3	92.4	92.5	92.2	91.4	90.8	90.3	90.9	92.0	92.4	92.5	91.82
9	92.5	92.3	92.6	92.5	91.7	90.5	89.6	89.3	89.3	90.0	90.2	90.1	90.88
10	89.8	89.4	89.5	88.9	88.3	87.9	86.7	86.5	86.5	87.1	87.5	87.1	87.93
11	86.9	86.9	86.9	87.1	86.9	86.5	86.0	85.7	86.0	87.0	87.5	87.6	86.75
12	87.5	88.0	88.6	88.6	88.1	87.8	87.9	87.9	88.1	89.2	90.0	90.4	88.51
13	90.2	90.3	90.6	90.3	89.7	88.9	88.7	88.6	88.9	89.5	90.1	90.2	89.67
14	89.9	89.9	90.0	89.7	88.9	88.1	87.5	87.6	87.1	89.7	90.1	90.2	89.06
15	90.1	90.3	90.8	90.7	90.3	90.0	89.8	90.0	89.9	91.0	91.8	91.8	90.54
16	91.6	91.7	91.9	91.4	90.9	90.4	89.5	88.7	87.9	88.1	86.5	85.7	89.52
17	84.2	83.5	84.1	84.8	85.7	86.1	86.3	86.4	86.5	86.7	87.1	87.6	85.75
18	87.4	87.3	87.6	87.5	87.4	86.6	86.3	86.3	86.7	87.4	88.0	88.1	87.22
19	88.2	88.3	89.1	89.1	88.9	88.5	88.3	87.9	88.0	88.8	89.5	89.6	88.68
20	88.8	90.0	90.1	89.9	89.5	88.9	88.4	88.5	89.2	89.8	90.3	90.4	89.48
21	90.0	89.8	89.4	89.7	89.2	88.0	87.5	87.4	87.4	87.4	87.4	87.4	88.38
22	86.8	87.4	88.6	88.7	89.0	88.9	88.8	88.9	89.3	89.8	89.8	89.6	88.80
23	89.7	90.2	90.0	90.2	90.4	89.3	90.7	90.7	90.9	91.9	92.4	93.0	90.78
24	92.9	93.2	93.8	93.9	93.9	93.5	93.1	93.3	93.4	94.2	94.2	94.0	93.62
25	93.9	93.8	93.9	93.8	93.4	92.4	92.0	91.9	92.2	93.1	93.0	93.4	93.07
26	92.9	92.9	93.1	92.9	92.2	91.2	90.2	89.8	90.1	91.5	91.9	92.0	91.72
27	92.1	92.1	92.5	92.4	92.0	91.2	90.6	90.6	91.2	92.4	93.0	93.1	91.93
28	93.3	93.4	93.6	93.5	93.0	92.1	91.4	91.1	91.1	92.3	92.5	92.6	92.49
29	92.4	92.2	92.4	91.9	91.2	90.2	88.8	88.5	88.9	89.8	90.0	90.0	90.52
30	89.6	89.7	90.3	89.9	89.5	88.6	87.8	87.8	88.5	89.4	90.0	90.4	89.29
31	90.6	91.0	91.6	91.4	90.8	89.7	89.4	89.1	89.8	91.3	91.6	91.9	90.68
平均 Mean	90.61	90.68	90.97	90.89	90.56	89.94	89.50	89.44	89.62	90.46	90.83	90.84	90.36
九月 September													
1	92.0	92.1	92.4	92.3	91.7	91.2	91.0	91.0	91.8	93.0	93.3	93.5	92.11
2	93.1	93.4	93.4	93.5	93.2	92.2	91.9	92.2	92.5	93.6	93.8	94.1	93.07
3	94.0	94.3	94.7	94.4	93.7	92.7	92.3	92.3	92.9	94.1	94.4	94.2	93.67
4	94.1	94.0	94.2	94.1	93.8	92.9	92.0	91.6	91.1	92.8	92.6	92.7	92.99
5	92.3	92.0	92.3	91.9	91.3	90.1	89.4	89.1	89.2	90.4	90.9	90.8	90.81
6	91.0	91.2	91.2	91.2	90.5	89.5	89.2	89.2	89.7	90.5	91.0	91.1	90.44
7	91.2	91.2	91.4	91.4	90.9	90.1	89.7	89.5	89.4	90.4	90.3	90.4	90.49
8	90.3	89.9	90.1	90.0	89.9	89.6	89.1	88.9	89.0	89.8	89.6	89.0	89.60
9	88.7	88.5	88.8	89.0	89.3	88.9	88.7	88.9	89.1	90.1	90.1	89.8	89.16
10	89.7	89.5	89.7	89.4	89.1	88.9	88.9	88.6	88.9	89.6	89.7	90.1	89.34
11	89.4	89.3	90.8	90.7	90.6	90.3	90.0	89.9	90.1	91.0	91.4	91.6	90.42
12	91.4	91.8	92.0	92.3	92.0	91.0	90.0	89.6	90.2	91.0	91.3	90.9	91.12
平均 Mean	91.43	91.43	91.75	91.68	91.33	90.62	90.18	90.07	90.32	91.36	91.53	91.52	91.10
四十三日間平均 43 days Mean	90.84	90.89	91.19	91.11	90.77	90.13	89.69	89.61	89.81	90.71	91.02	91.03	90.57

明治廿四年八月御嶽山頂及黒澤同時觀測

SIMULTANEOUS OBSERVATIONS ON THE SUMMIT OF ONTAKE AND AT KUROSAWA, AUGUST, 1891.

黒澤

空氣之溫度 (攝氏)

AIR TEMPERATURE (°C)

at Kurosawa.

月日 Date	午前二時 2 am	午前四時 4 am	午前六時 6 am	午前八時 8 am	午前十時 10 am	正午 Noon	午後二時 2 pm	午後四時 4 pm	午後六時 6 pm	午後八時 8 pm	午後十時 10 pm	夜半 M. N.	平均 Mean
八月 August													
1	14.1	12.2	12.6	19.3	25.7	27.1	27.8	27.4	23.5	19.2	18.8	18.6	20.52
2	17.5	16.8	17.7	20.8	25.2	23.2	22.6	19.6	18.9	18.1	17.8	17.4	19.63
3	17.1	17.4	17.5	20.4	23.9	26.2	26.7	26.0	23.9	21.2	20.0	20.8	21.76
4	20.8	20.6	19.4	22.4	21.7	23.2	25.5	22.8	21.3	19.2	19.0	18.4	21.19
5	18.0	17.8	18.0	19.9	22.1	24.7	25.0	22.6	21.6	20.6	19.9	19.2	20.78
6	19.4	19.2	19.0	20.6	24.1	26.1	25.3	22.8	23.2	20.6	20.0	19.4	21.64
7	19.3	19.0	19.2	22.1	25.7	26.6	26.1	23.7	23.0	21.2	19.6	18.2	21.97
8	17.8	16.3	16.2	20.9	24.7	28.4	29.2	30.4	26.6	19.9	18.6	17.8	22.23
9	17.3	16.8	16.5	21.2	27.0	30.2	28.4	29.7	25.6	21.4	19.2	18.4	22.64
10	17.8	17.8	17.8	22.7	24.9	27.0	28.4	26.2	24.2	20.6	19.0	18.8	22.10
11	18.8	17.9	17.8	21.2	25.2	25.4	27.0	27.1	24.4	20.2	19.3	18.6	21.91
12	17.8	16.8	17.0	22.2	26.7	28.8	29.5	28.0	24.2	20.0	19.1	18.9	22.42
13	18.4	17.5	18.0	21.2	27.1	29.2	28.6	28.4	25.0	20.2	18.3	18.2	22.51
14	16.4	15.0	15.5	21.9	26.4	30.1	29.2	30.1	26.2	23.6	22.2	20.0	23.05
15	20.6	20.4	20.0	24.2	28.0	29.0	29.4	29.2	25.6	20.3	19.3	17.3	23.61
16	16.4	14.9	15.4	20.2	26.8	28.2	27.9	25.0	22.6	20.2	20.7	20.0	21.52
17	19.2	20.3	21.2	20.7	20.3	23.2	24.6	22.0	20.3	20.2	20.0	19.2	20.93
18	19.4	19.3	19.5	20.3	22.5	26.0	21.1	20.8	19.7	17.0	16.2	15.6	19.78
19	15.0	13.2	12.8	16.8	23.2	25.4	24.9	25.2	21.5	16.2	14.6	12.4	18.43
20	11.5	10.4	11.2	15.1	21.7	24.0	24.4	24.2	20.2	15.6	13.8	13.8	17.16
21	13.7	13.8	14.2	14.2	15.6	16.3	18.2	19.0	18.4	19.0	18.7	18.7	16.65
22	18.5	18.2	17.6	19.6	20.6	21.7	21.2	21.6	18.9	18.2	17.9	17.6	19.30
23	17.4	17.1	17.4	18.5	19.4	19.8	18.9	19.2	18.7	17.4	17.0	16.0	18.07
24	15.7	15.0	14.9	17.2	20.3	23.2	22.5	22.0	19.7	18.2	17.5	16.9	18.59
25	16.0	15.7	16.2	19.7	24.4	25.6	25.9	23.5	20.8	16.8	15.6	15.0	19.60
26	14.1	13.9	13.5	14.9	21.8	25.4	26.5	26.4	18.2	14.8	12.9	11.6	17.83
27	10.0	9.4	9.0	16.4	22.2	26.6	26.4	25.1	20.4	17.9	15.3	14.0	17.72
28	14.2	12.4	12.1	16.5	21.8	25.6	26.7	25.9	20.8	16.8	15.1	14.2	18.51
29	14.0	13.6	13.8	16.4	21.6	25.8	28.3	27.2	21.1	17.6	15.2	13.0	18.97
30	11.8	10.0	10.4	14.6	22.3	27.2	28.4	25.0	20.0	16.6	14.1	12.6	17.75
31	11.2	10.8	11.0	17.0	23.7	27.8	28.2	27.2	22.3	17.9	17.2	17.4	19.31
平均 Mean	16.43	15.79	15.88	19.33	23.44	25.71	25.90	24.95	21.96	18.93	17.80	17.03	20.26
九月 September													
1	15.6	14.6	14.3	20.3	26.0	28.4	28.0	27.8	23.6	19.6	18.6	18.0	21.23
2	17.2	16.5	16.4	21.0	26.2	28.5	26.2	24.2	21.6	19.3	18.6	17.8	21.12
3	17.6	16.8	16.8	20.4	26.4	31.2	29.5	29.4	23.0	20.9	19.2	19.6	22.57
4	19.0	18.0	17.6	21.2	25.8	28.5	28.7	27.8	22.7	19.6	17.8	17.0	21.97
5	16.1	16.0	15.8	19.9	26.7	28.6	29.8	26.2	22.5	18.4	17.5	15.4	21.07
6	15.8	15.8	14.7	18.0	24.3	28.4	29.4	27.9	22.6	18.4	17.7	14.9	20.66
7	14.3	13.2	13.4	17.8	23.8	25.6	26.2	24.2	21.4	19.6	17.6	17.6	19.56
8	17.2	16.9	16.6	20.2	22.9	24.6	24.4	22.4	20.2	19.1	18.4	18.0	20.07
9	18.2	18.0	18.2	18.6	19.6	23.1	22.3	23.2	20.8	20.1	19.4	19.1	20.05
10	18.8	18.4	18.4	21.2	25.5	26.0	26.0	26.3	22.8	20.6	20.4	19.0	21.95
11	17.8	16.6	17.4	21.4	27.8	27.6	29.4	28.6	22.4	20.2	18.5	17.0	22.07
12	17.0	15.9	15.0	20.4	26.8	28.9	30.3	29.4	21.8	20.2	19.6	19.3	22.05
平均 Mean	17.05	16.39	16.22	20.03	25.15	27.45	27.52	26.45	22.12	19.67	18.61	17.72	21.20
四十三日間平均 43 days Mean	16.60	15.96	15.98	19.52	23.92	26.20	26.35	25.37	22.00	19.13	18.03	17.23	20.52

明治廿四年八月御嶽山頂及黑澤同時觀測

SIMULTANEOUS OBSERVATIONS ON THE SUMMIT OF ONTAKE AND AT KUROSAWA, AUGUST, 1891.

黑澤

氣溫日溫地溫之最高最低及地面之溫度

EXTREMES OF AIR TEMPERATURE, SOLAR AND TERRESTRIAL RADIATION; AND EARTH TEMPERATURE ON SURFACE at Kurosawa.

月日 Date	最高溫度 Max. Temp.	最低溫度 Min. Temp.	較差 Range	最高日溫 Max. S. R.	最低地溫 Min. T. R.	地面之溫度 EARTH TEMPERATURE ON SURFACE												
						午前二時 2 am	午前四時 4 am	午前六時 6 am	午前八時 8 am	午前十時 10 am	正午 Noon	午後二時 2 pm	午後四時 4 pm	午後六時 6 pm	午後八時 8 pm	午後十時 10 pm	夜半 M. N.	平均 Mean
八月 August																		
1	28.3	11.2	17.1	36.6	8.9	....	....	....	....	....	....	....	....	....	....	....	....	....
2	27.0	16.3	10.7	42.2	14.3	....	....	....	....	....	....	....	....	....	....	....	....	....
3	28.1	16.8	11.3	42.1	15.9	....	....	....	....	....	....	....	....	....	....	....	....	....
4	26.2	18.1	8.1	35.7	17.1	....	....	....	....	....	....	....	....	....	....	....	....	....
5	26.4	17.2	9.2	41.7	17.0	....	....	....	....	....	....	....	....	24.2	21.7	21.1	20.0	....
6	27.5	18.7	8.8	42.6	17.9	20.0	20.0	20.0	24.8	37.2	37.1	37.6	28.6	26.7	22.2	21.4	20.2	26.32
7	28.1	18.0	10.1	43.5	15.7	20.2	19.6	20.7	29.6	38.9	33.6	31.3	27.7	25.2	22.3	19.7	18.6	25.62
8	31.4	15.3	16.1	43.7	12.6	18.6	16.7	16.9	31.2	35.1	41.9	39.8	35.3	26.6	20.9	16.8	18.4	26.52
9	31.0	15.4	15.6	43.9	13.1	18.1	17.5	17.5	29.6	39.1	44.7	36.7	38.8	27.4	22.2	19.2	19.1	27.49
10	29.1	16.4	12.7	41.8	14.3	18.6	18.6	18.8	29.3	30.1	41.6	45.3	34.6	27.2	18.6	20.0	19.4	26.84
11	28.1	17.2	10.9	40.7	15.4	19.3	17.5	18.3	30.2	33.7	31.7	36.6	34.1	26.9	21.7	17.3	18.6	25.49
12	30.4	16.2	14.2	45.2	13.6	17.6	16.7	17.8	31.4	43.8	50.9	....	....	....	21.9	20.3	19.7	....
13	31.4	17.0	14.4	47.3	15.0	19.2	17.8	18.6	28.0	43.9	47.1	38.9	37.9	27.3	21.8	19.1	17.8	23.12
14	32.2	14.4	17.8	47.5	11.8	16.4	15.2	16.1	32.9	40.0	....	....	....	29.9	21.9	23.3	17.3	....
15	31.5	17.1	14.4	45.8	14.9	21.6	21.4	21.7	38.9	....	....	38.9	....	29.7	21.6	19.7	17.6	....
16	30.0	14.0	16.0	44.0	11.4	16.5	14.8	15.7	32.4	51.0	....	....	32.1	24.3	21.3	20.5	19.6	....
17	26.1	19.1	7.0	37.3	18.0	19.1	19.7	19.6	20.3	21.9	25.9	29.1	25.7	22.3	21.2	20.3	19.9	22.08
18	26.9	15.0	11.9	40.5	12.7	19.8	19.8	20.1	21.7	26.6	36.6	34.1	24.0	21.9	17.7	16.8	15.5	22.88
19	27.4	12.0	15.4	42.5	8.7	14.9	13.4	14.7	26.3	37.1	....	....	....	20.3	16.2	14.6	12.9	....
20	25.9	9.6	16.3	38.6	6.4	12.0	10.9	12.9	25.8	35.3	35.8	36.4	32.4	22.6	16.9	14.9	14.8	22.56
21	19.9	13.3	6.6	21.2	12.0	15.2	15.1	16.1	16.2	19.8	19.0	20.1	20.7	19.6	18.9	18.6	18.4	18.14
22	22.1	17.2	4.9	26.4	16.4	18.4	18.0	17.8	23.0	25.8	28.7	26.1	25.5	21.0	19.7	19.2	18.5	21.81
23	20.7	15.8	4.9	22.8	13.7	18.1	17.3	18.3	20.9	24.2	24.4	23.1	22.7	20.5	18.6	17.4	16.3	20.15
24	24.0	14.0	10.0	33.3	12.2	16.3	15.7	15.7	22.5	28.1	32.8	29.1	26.3	21.8	19.3	18.4	17.9	21.99
25	26.4	14.6	11.8	40.3	12.7	16.5	16.1	17.6	27.1	36.2	36.2	36.6	28.1	23.1	18.0	16.9	16.3	24.06
26	27.6	11.3	16.3	40.5	8.4	14.6	14.2	15.5	19.4	35.4	40.0	40.3	34.2	22.4	16.5	19.8	12.6	23.74
27	28.8	8.4	20.4	42.8	5.3	10.9	10.0	9.8	25.9	35.9	42.1	41.2	32.4	23.2	19.7	16.7	15.0	23.57
28	27.4	11.4	16.0	39.4	8.7	15.2	13.1	12.7	21.5	34.8	40.1	44.3	35.8	23.6	18.6	16.2	14.8	24.22
29	28.8	12.7	16.1	41.0	9.4	15.5	15.4	15.7	20.8	34.6	45.8	46.3	35.2	24.5	18.6	15.8	13.7	25.16
30	29.1	8.9	20.2	40.7	5.4	12.2	10.6	11.8	19.9	39.2	48.9	43.3	29.0	22.6	17.6	15.2	13.4	23.64
31	29.1	9.9	19.2	40.8	7.0	11.9	11.3	11.5	36.7	42.2	46.7	45.8	36.8	24.2	19.0	18.0	18.6	26.89
平均 Mean	27.64	14.60	13.04	39.78	12.45	16.65	15.94	16.47	24.97	33.24	37.18	36.29	30.75	23.84	19.52	17.99	17.04	24.16
九月 September																		
1	29.6	13.9	15.7	43.2	11.6	15.5	14.3	14.9	29.4	47.2	45.2	36.4	36.9	25.3	20.2	19.0	17.6	26.82
2	30.2	16.0	14.2	45.5	13.8	17.2	16.7	18.3	28.8	40.7	....	34.8	28.3	22.4	19.4	18.8	18.8	....
3	31.5	16.5	15.0	44.4	15.1	17.6	17.5	18.3	30.1	47.1	....	....	39.7	25.5	22.2	19.4	20.3	....
4	29.5	16.5	13.0	42.8	13.8	19.7	18.1	18.2	28.7	39.0	46.3	....	....	26.1	20.2	17.8	16.4	....
5	30.5	15.1	15.4	42.9	12.4	14.3	17.4	17.3	30.0	47.8	....	43.8	31.9	24.2	19.3	17.3	15.4	....
6	30.1	13.9	16.2	43.3	11.4	15.8	17.3	16.5	25.3	47.7	45.7	....	35.2	23.8	19.0	18.5	15.4	....
7	27.2	12.3	14.9	38.4	8.8	14.4	13.1	14.4	24.8	41.8	39.9	38.8	32.3	23.7	20.6	18.3	18.4	25.04
8	25.0	16.2	8.8	31.4	14.8	18.0	17.7	17.3	26.0	32.4	35.3	31.8	27.2	21.8	19.7	18.8	18.8	23.73
9	24.5	17.6	6.9	32.7	17.0	18.4	18.4	18.4	19.9	22.4	29.3	27.7	29.0	22.7	21.2	20.3	20.1	22.32
10	27.4	18.0	9.4	38.7	16.5	20.0	19.3	19.6	28.2	37.2	33.8	33.6	30.7	24.3	22.3	22.1	19.2	25.86
11	29.9	16.2	13.7	41.7	13.4	18.6	16.8	18.3	28.3	36.8	36.5	38.8	32.7	24.4	20.9	18.9	17.3	25.69
12	30.6	14.6	16.0	41.0	12.4	17.6	16.3	15.3	27.1	39.1	40.9	39.2	32.9	23.9	20.9	21.1	21.0	26.27
平均 Mean	28.83	15.57	13.26	40.50	13.42	17.50	16.56	16.89	26.24	36.70	37.27	35.19	31.67	23.73	20.83	19.79	18.91	25.11
四十三日間平均 43 days Mean	27.97	14.87	13.10	39.98	12.72	16.86*	16.10*	16.57*	25.30*	34.10*	37.20*	36.01*	30.98*	23.81*	19.85*	18.44*	17.51*	24.39*

二十八日間平均 * 28 days mean

明治廿四年八月御嶽山頂及黒澤同時觀測

SIMULTANEOUS OBSERVATIONS ON THE SUMMIT OF ONTAKE AND AT KUROSAWA, AUGUST, 1891.

黒澤

水蒸氣之張力 (粍)

TENSION OF VAPOUR (mm)

at Kurosawa.

月日 Date	午前二時 2 am	午前四時 4 am	午前六時 6 am	午前八時 8 am	午前十時 10 am	正午 Noon	午後二時 2 pm	午後四時 4 pm	午後六時 6 pm	午後八時 8 pm	午後十時 10 pm	夜半 M. N.	平均 Mean
八月 August													
1	11.2	9.9	9.7	11.8	12.1	11.8	12.2	13.3	14.6	14.8	14.7	14.5	12.55
2	14.5	14.0	14.4	15.1	16.4	17.5	17.0	14.0	15.3	15.0	14.8	14.4	15.20
3	14.1	14.3	14.6	15.6	16.9	16.0	14.7	15.1	14.5	14.7	14.2	14.3	14.92
4	14.3	14.8	16.4	17.5	16.6	18.8	16.5	17.8	17.3	16.2	15.3	14.7	16.35
5	14.8	14.8	15.1	15.3	16.5	16.7	17.6	17.7	17.4	17.3	16.7	16.3	16.35
6	16.4	16.2	15.9	16.3	16.4	18.7	18.2	18.2	16.2	17.3	17.0	16.2	16.92
7	16.1	15.9	16.0	16.8	16.9	16.5	18.6	19.8	18.8	17.9	15.8	15.0	17.01
8	14.5	13.4	13.4	14.5	16.7	14.3	16.4	13.7	15.1	14.9	14.9	14.3	14.67
9	14.2	13.6	13.5	14.8	15.9	17.6	17.1	14.6	17.2	16.6	15.6	15.2	15.49
10	14.8	14.6	14.6	16.7	16.8	16.6	15.7	16.4	17.5	16.7	16.1	15.9	16.03
11	15.8	14.7	14.8	16.8	16.8	17.3	15.4	16.5	16.6	16.8	16.3	15.2	16.08
12	14.8	14.0	14.0	15.5	13.4	17.6	16.7	14.6	16.7	17.0	15.2	15.5	15.42
13	15.4	14.5	14.1	16.2	17.6	16.9	19.9	18.8	15.8	15.7	15.3	13.8	16.17
14	13.4	11.5	12.9	15.5	16.3	16.2	16.8	18.2	18.3	16.5	17.9	17.0	15.87
15	16.9	16.1	15.5	16.4	16.5	15.0	15.8	15.2	15.4	16.7	16.1	14.5	15.84
16	13.7	12.4	12.7	14.4	12.7	13.2	12.6	12.7	14.4	15.7	15.7	15.5	13.81
17	15.5	15.7	15.0	16.1	16.6	15.1	15.4	17.6	17.5	17.4	17.1	16.5	16.29
18	16.5	16.6	16.6	17.1	18.8	16.5	17.2	17.5	15.9	14.0	13.7	12.5	16.07
19	12.2	11.3	10.7	12.5	14.0	12.6	12.2	11.6	10.0	10.6	11.7	10.6	11.67
20	10.0	9.3	9.6	10.4	10.9	9.9	12.0	13.5	17.4	13.2	11.7	11.6	11.62
21	11.7	11.7	11.1	11.6	12.4	13.3	15.2	15.6	15.5	15.3	15.5	15.8	13.72
22	15.6	14.8	14.8	15.7	16.5	16.6	16.2	15.6	14.3	15.2	15.0	14.8	15.42
23	14.6	14.3	14.8	14.9	15.5	16.0	15.3	15.6	15.3	14.6	14.0	13.0	14.82
24	12.5	12.2	12.0	12.9	14.0	15.7	14.6	15.3	15.4	14.8	14.3	14.0	13.97
25	13.2	12.8	12.7	13.7	13.8	12.1	12.2	16.5	14.9	13.4	12.2	12.1	13.30
26	11.1	11.1	10.8	10.8	12.8	11.9	10.6	11.8	12.9	10.4	10.1	9.9	11.18
27	8.9	8.6	8.5	10.8	11.8	14.4	11.8	14.0	14.7	13.5	12.5	11.6	11.76
28	11.7	10.3	10.4	12.2	13.3	13.1	12.8	12.3	14.1	13.6	12.3	11.7	12.32
29	11.6	11.3	11.1	12.0	13.4	13.6	12.4	11.4	13.4	12.4	11.9	10.8	12.11
30	10.0	9.1	9.1	10.0	12.2	10.6	11.1	14.1	13.5	11.8	11.2	10.6	11.11
31	9.6	9.5	9.5	11.3	13.6	13.4	14.8	15.6	16.3	14.7	13.9	13.4	12.97
平均 Mean	13.54	13.01	13.04	14.23	14.97	15.02	15.00	15.31	15.55	14.99	14.47	13.91	14.42
九月 September													
1	12.7	11.9	11.8	14.1	15.5	17.1	14.2	14.7	16.8	16.2	15.2	14.3	14.54
2	13.7	13.5	13.5	15.5	17.0	16.5	19.1	16.4	17.6	16.3	15.4	14.8	15.77
3	13.9	13.9	13.6	14.6	16.3	15.7	18.0	17.0	17.6	17.0	15.8	16.0	15.78
4	15.4	15.1	14.3	15.3	17.4	17.4	16.2	16.1	15.8	15.5	14.8	14.0	15.61
5	13.4	13.2	12.9	14.2	14.4	12.7	15.9	15.9	15.4	15.0	14.0	12.8	14.15
6	12.7	12.1	11.7	13.0	14.9	14.7	15.6	14.3	13.9	13.7	13.5	12.1	13.52
7	11.7	11.0	11.1	11.9	13.9	13.7	14.7	14.8	14.8	14.8	14.4	14.3	13.42
8	14.1	14.0	12.1	14.2	15.5	15.9	15.5	17.7	16.5	15.5	15.0	15.1	15.09
9	15.2	15.3	15.4	15.6	16.2	18.3	17.4	18.4	17.5	16.5	16.7	16.2	16.56
10	16.1	15.5	15.4	17.1	13.5	14.1	15.0	15.6	16.7	17.6	17.4	15.8	15.82
11	14.8	14.0	14.8	16.1	17.1	13.8	15.8	15.5	17.7	16.5	15.3	14.2	15.47
12	14.0	13.3	12.7	15.2	17.5	15.0	15.0	15.1	16.9	15.7	16.2	16.1	15.22
平均 Mean	13.97	13.57	13.27	14.73	15.77	15.41	16.03	15.96	16.43	15.86	15.31	14.64	15.08
四十三日間平均 43 days Mean	13.66	13.17	13.11	14.37	15.19	15.13	15.29	15.49	15.80	15.23	14.71	14.11	14.60

明治廿四年八月御嶽山頂及黒澤同時觀測

SIMULTANEOUS OBSERVATIONS ON THE SUMMIT OF ONTAKE AND AT KUROSAWA, AUGUST, 1891.

黒　　澤

濕度 (%) 及雨量 (粍)

RELATIVE HUMIDITY (%) AND PRECIPITATION (mm)

at Kurosawa.

月日 Date	濕度 RELATIVE HUMIDITY 午前二時 2 am	午前四時 4 am	午前六時 6 am	午前八時 8 am	午前十時 10 am	正午 Noon	午後二時 2 pm	午後四時 4 pm	午後六時 6 pm	午後八時 8 pm	午後十時 10 pm	夜半 M.N.	平均 Mean	雨量 PRECIPITATION 午前二時 2 am	午前四時 4 am	午前六時 6 am	午前八時 8 am	午前十時 10 am	正午 Noon	午後二時 2 pm	午後四時 4 pm	午後六時 6 pm	午後八時 8 pm	午後十時 10 pm	夜半 M.N.	合計 Sum
八月 August																										
1	94	93	89	71	50	44	44	49	68	89	91	91	72.7	—	—	—	—	—	—	—	—	—	—	—	—	—
2	98	99	95	82	69	82	84	82	95	98	98	98	90.0	—	—	—	0.0	0.0	2.2	5.0	3.5	0.6	—	—	—	11.3
3	98	97	98	89	77	64	56	61	66	78	82	78	78.7	0.0	—	0.0	—	0.2	0.0	0.1	0.0	—	—	0.1	—	0.4
4	78	81	98	87	87	89	68	86	92	98	93	93	87.5	—	0.0	1.4	0.1	1.1	3.7	—	0.2	1.0	—	—	0.0	7.5
5	97	98	99	88	83	71	75	87	91	96	97	99	90.1	0.1	6.2	4.7	0.0	0.3	0.0	0.2	0.0	0.2	0.9	0.6	0.3	13.5
6	98	98	98	91	74	75	76	88	77	96	99	97	88.9	0.0	0.1	0.4	0.4	—	0.5	1.3	—	1.0	—	—	—	3.7
7	97	98	97	85	69	64	74	91	90	96	94	97	87.7	0.0	—	—	—	—	—	0.0	1.6	0.2	—	—	—	1.8
8	95	98	98	79	72	50	55	43	58	86	93	94	76.7	—	—	—	—	—	—	—	—	—	—	—	—	—
9	97	95	96	79	60	55	60	47	71	88	94	97	78.2	—	—	—	—	—	—	—	—	—	—	—	—	—
10	98	97	97	82	71	62	55	65	78	92	99	99	82.9	—	—	—	0.0	0.0	0.0	—	0.0	—	2.1	—	—	2.1
11	98	97	98	90	70	72	58	62	72	96	98	96	83.8	—	—	—	—	—	—	—	—	—	—	—	—	—
12	98	99	98	78	50	60	55	52	74	98	92	96	79.2	—	—	—	—	—	—	—	—	—	—	—	—	—
13	98	97	92	86	65	55	68	66	66	89	98	89	80.7	—	—	—	—	—	—	—	—	—	—	—	—	—
14	96	93	99	80	64	50	55	56	72	80	90	98	78.2	—	—	—	—	—	—	—	—	—	—	—	—	—
15	94	90	89	72	57	50	51	50	63	95	97	99	75.6	—	—	—	—	—	—	—	—	—	—	—	—	—
16	99	99	98	81	48	46	45	53	71	89	86	89	75.3	—	—	—	—	—	—	—	—	0.2	0.5	3.0	15.7	19.4
17	93	88	80	88	94	71	66	90	99	99	99	100	88.9	8.9	17.2	14.2	38.7	5.4	2.1	0.0	0.2	7.5	0.5	10.7	4.1	109.5
18	99	100	99	97	93	66	93	96	93	98	100	95	94.1	0.7	1.6	0.9	2.1	1.8	—	8.4	0.7	4.5	—	—	—	20.7
19	96	100	97	87	65	52	52	49	52	77	95	99	76.7	—	—	—	—	—	—	—	—	—	—	—	—	—
20	99	99	97	81	56	44	53	60	99	100	100	99	82.2	—	—	—	—	—	—	—	—	—	—	—	—	—
21	100	100	92	96	94	96	98	95	99	93	97	99	96.6	—	—	—	0.3	1.9	0.5	6.8	6.9	2.4	0.9	6.0	11.2	36.9
22	99	95	99	92	91	91	86	81	94	98	98	99	93.6	9.6	14.2	0.5	—	0.2	1.7	0.1	0.0	0.4	1.6	0.1	1.7	30.1
23	99	99	100	94	92	93	94	94	96	99	98	96	96.2	2.4	0.0	0.2	1.1	1.6	0.4	3.1	2.2	0.3	—	—	—	11.3
24	94	96	95	88	78	73	72	77	90	95	96	98	87.7	—	—	—	—	—	—	—	—	0.0	—	—	0.0	0.0
25	98	96	93	80	61	49	49	77	81	94	93	95	80.5	—	—	—	—	—	—	—	—	—	—	—	—	—
26	92	94	94	85	66	49	41	46	82	83	91	97	76.7	—	—	—	—	—	—	—	—	—	—	—	—	—
27	97	98	100	78	59	56	46	58	83	88	96	98	79.8	—	—	—	—	—	—	—	—	—	—	—	—	—
28	97	97	99	87	68	54	49	50	77	95	96	97	80.5	—	—	—	—	—	—	—	—	—	—	—	—	—
29	97	97	95	86	70	55	43	42	72	83	93	97	77.6	—	—	—	—	—	—	—	—	—	—	—	—	—
30	97	100	97	81	61	39	39	60	78	84	94	97	77.2	—	—	—	—	—	—	—	—	—	—	—	—	—
31	97	99	97	78	62	48	51	58	82	97	95	91	79.6	—	—	—	—	—	—	—	—	—	—	—	—	—
平均 Mean	96.4	93.5	95.9	84.5	70.2	62.1	61.6	66.8	80.0	91.8	94.9	95.7	83.0	21.7	39.3	22.3	42.7	12.5	11.1	25.0	15.3	18.3	6.5	20.5	33.0	268.2
九月 September																										
1	96	96	97	80	62	60	51	53	78	96	95	93	79.7	—	—	—	—	—	—	—	—	—	—	—	—	—
2	94	96	98	84	67	57	75	73	92	98	97	98	85.7	—	—	—		—	—	0.0	0.0		—	—	—	0.0
3	93	98	95	81	64	47	59	56	84	93	96	95	80.1	—	—	—	—	—	—	—	—	—	—	—	—	—
4	94	98	95	81	70	60	55	57	78	91	98	98	81.2	—	—	—	—	—	—	—	—	—	—	—	—	—
5	99	98	96	82	55	44	51	63	76	95	94	99	79.3	—	—	—	—	—	—	—	—	—	—	—	—	—
6	95	90	94	84	66	51	51	51	67	87	90	96	76.8	—	—	—	—	—	—	—	—	—	—	—	—	—
7	96	97	97	78	62	56	58	65	78	87	96	95	80.4	—	—	—	—	—	—	—	—	—	0.0	—	—	0.0
8	96	98	86	80	74	69	68	88	93	94	95	99	86.7	—	0.0	—	—	—	—	—	—	0.2	0.3	1.1	3.0	4.6
9	98	100	99	98	96	87	87	87	96	94	100	99	95.1	8.9	7.3	8.5	6.6	17.1	4.1	0.0	0.4	—	0.7	0.2	—	53.8
10	100	99	98	91	56	56	60	61	80	98	98	97	82.8	—	—	—	—	—	—	—	0.0	—	1.0	—	—	1.0
11	98	100	100	84	62	50	51	53	88	93	97	99	81.2	—	—	—	—	—	—	—	—	—	—	—	—	—
12	98	99	100	85	66	51	46	49	86	89	96	97	80.2	—	—	—	—	—	—	—	—	—	—	0.0	0.1	0.1
平均 Mean	96.4	97.4	96.2	84.0	66.7	57.3	59.3	63.0	83.0	92.9	96.0	97.1	82.4	8.9	7.3	8.5	6.6	17.1	4.1	0.0	0.4	0.2	2.0	1.3	3.1	59.5
四十三日間平均 43 days Mean	96.4	96.8	96.0	84.3	69.2	60.8	61.0	65.7	80.9	92.1	95.2	96.1	82.9	30.6	46.6	30.8	49.3	29.6	15.2	25.0	15.7	18.5	8.5	21.8	36.1	327.7

明治廿四年八月御嶽

SIMULTANEOUS OBSERVATIONS ON THE SUMMIT

黒

風向及

DIRECTION AND VELOCITY

at

月日 Date	午前二時 2 am 方向 Dir.	速度 Vel.	午前四時 4 am 方向 Dir.	速度 Vel.	午前六時 6 am 方向 Dir.	速度 Vel.	午前八時 8 am 方向 Dir.	速度 Vel.	午前十時 10 am 方向 Dir.	速度 Vel.	正午 Noon 方向 Dir.	速度 Vel.
八月 August												
1	NW	1.0	—	0.2	—	0.1	—	0.0	NW	2.5	SE	4.6
2	—	0.0	—	0.2	—	0.3	NNW	1.2	S	2.7	SSE	1.9
3	—	0.0	—	0.2	—	0.0	—	0.0	SE	1.9	NE	1.0
4	S	1.2	SSE	1.2	NNE	0.5	S	2.0	SE	2.2	SW	1.0
5	—	0.1	—	0.4	—	0.0	—	0.0	—	0.2	S	3.6
6	—	0.0	—	0.0	—	0.0	—	0.0	W	1.3	S	1.4
7	—	0.0	—	0.0	—	0.0	SW	1.7	SW	2.3	—	0.1
8	—	0.2	—	0.0	—	0.0	—	0.1	NE	2.6	NW	0.9
9	—	0.0	—	0.1	—	0.0	—	0.0	—	0.0	N	0.7
10	—	0.0	—	0.2	—	0.1	—	0.1	SSE	1.7	SSE	3.3
11	—	0.3	N	1.0	—	0.0	W	1.2	N	1.0	SE	1.7
12	—	0.0	—	0.0	—	0.0	NNW	0.5	SW	2.7	S	2.5
13	—	0.4	—	0.0	NW	1.2	—	0.2	WSW	0.7	W	1.2
14	NW	1.2	—	0.0	—	0.0	—	0.0	S	3.2	SSW	1.8
15	—	0.0	—	0.0	NNW	0.7	—	0.2	S	1.3	SE	5.7
16	—	0.1	—	0.0	—	0.0	—	0.3	SSW	4.2	S	4.2
17	S	2.6	E	7.4	SE	6.9	SE	8.0	E	2.0	SW	1.3
18	—	0.0	—	0.0	—	0.0	ESE	1.0	—	0.4	SE	2.4
19	—	0.0	—	0.0	—	0.0	—	0.0	—	0.0	—	0.0
20	—	0.0	—	0.0	—	0.1	—	0.0	—	0.2	NW	1.2
21	—	0.0	—	0.0	—	0.0	E	0.5	E	1.2	—	0.4
22	—	0.0	—	0.3	—	0.0	—	0.3	—	0.2	ENE	1.0
23	—	0.0	—	0.0	—	0.0	—	0.2	—	0.0	E	1.4
24	—	0.0	—	0.0	—	0.0	—	0.0	E	1.4	S	2.2
25	—	0.0	ENE	0.9	E	1.4	—	0.1	E	1.0	WNW	2.0
26	—	0.0	—	0.1	NE	0.5	—	0.2	S	0.5	NE	1.7
27	—	0.0	—	0.0	—	0.0	—	0.0	S	1.1	SSW	3.7
28	—	0.0	—	0.4	—	0.0	—	0.0	S	1.5	S	1.6
29	—	0.2	—	0.2	—	0.2	—	0.0	S	1.7	SSW	0.7
30	—	0.0	—	0.0	—	0.0	NE	0.7	—	0.1	SSW	2.1
31	—	0.0	—	0.0	—	0.0	—	0.0	SE	1.9	S	1.9
平均 Mean		0.24		0.41		0.39		0.60		1.41		1.91
九月 September												
1	—	0.0	—	0.4	—	0.2	—	0.0	S	0.6	ESE	2.8
2	—	0.0	—	0.2	N	0.9	—	0.0	—	0.0	SSW	0.9
3	—	0.2	—	0.0	—	0.0	—	0.0	S	1.3	S	1.6
4	N	0.9	—	0.0	N	1.1	—	0.0	E	5.1	S	1.5
5	—	0.0	—	0.1	—	0.1	—	0.1	E	2.1	S	3.9
6	—	0.0	N	2.2	N	0.5	—	0.0	S	2.5	S	2.6
7	—	0.1	—	0.0	—	0.0	—	0.0	S	1.3	SE	1.4
8	—	0.0	—	0.0	—	0.1	—	0.0	S	1.8	E	1.2
9	NE	1.8	—	0.0	—	0.0	SE	0.8	ESE	1.6	SE	2.7
10	—	0.0	—	0.0	—	0.0	—	0.0	SE	5.1	SE	4.4
11	—	0.0	—	0.0	—	0.0	SE	1.5	SE	2.2	SE	5.6
12	—	0.0	—	0.0	—	0.0	—	0.0	SE	2.2	SE	1.2
平均 Mean		0.25		0.24		0.24		0.20		2.15		2.48
四十三日間平均 43 days Mean		0.24		0.36		0.35		0.49		1.62		2.07

山頂及黒澤同時觀測

OF ONTAKE AND AT KUROSAWA, AUGUST, 1891.

澤

速 度 (毎秒時)

OF WIND (m.p.s.)

Kurosawa.

午後二時 2 pm 方向 Dir.	速度 Vel.	午後四時 4 pm 方向 Dir.	速度 Vel.	午後六時 6 pm 方向 Dir.	速度 Vel.	午後八時 8 pm 方向 Dir.	速度 Vel.	午後十時 10 pm 方向 Dir.	速度 Vel.	夜半 M. N. 方向 Dir.	速度 Vel.	平均 Mean	廿四時間全速度 Total course in 24 hrs.
S	3.9	S	3.6	SE	2.0	—	0.3	—	0.1	—	0.0	1.52	138.1
SE	1.7	SE	2.4	—	0.0	—	0.0	—	0.0	—	0.0	0.87	73.5
SSE	4.2	SE	5.2	SE	1.5	SE	0.6	ESE	2.6	SE	2.0	1.60	157.0
SE	1.0	—	0.4	SSW	0.5	—	0.0	N	0.8	WNW	0.5	0.94	107.5
—	0.0	—	0.3	—	0.0	—	0.0	—	0.0	—	0.0	0.38	34.8
E	3.0	S	2.2		0.4	—	0.2	—	0.0	SSW	0.5	0.75	63.7
E	1.3	ENE	0.8	—	0.2	—	0.1	NNE	0.6	—	0.0	0.59	45.1
S	2.5	NW	1.2	SE	2.2	—	0.0	—	0.0	—	0.2	0.82	38.3
—	0.2	S	2.5	SSE	1.5	N	0.6	N	0.6	—	0.0	0.52	50.2
S	3.7	WNW	2.0	SW	1.2	NE	1.0	—	0.0	—	0.0	1.11	93.8
WNW	1.7	SSW	1.4	—	0.4	—	0.0	—	0.4	—	0.2	0.77	62.7
S	3.6	SSE	2.9	SSE	1.2	—	0.0	ESE	0.8	NW	0.6	1.23	100.7
NW	0.8	S	4.2	E	0.7	—	0.0	W	0.6	NW	1.3	0.94	87.0
ESE	3.2	SE	1.6	SE	1.9	—	0.2		0.0	—	0.0	1.09	113.5
SW	1.4	WSW	1.3	SW	0.7	—	0.0	—	0.2	—	0.1	0.97	85.3
SSE	5.8	SE	1.8	SW	2.5	N	2.2	N	1.5	ENE	5.1	2.31	167.3
SSE	2.3	SE	1.3	—	0.0	—	0.1		0.0	—	0.0	2.66	263.7
—	0.0	S	2.3	—	0.0	—	0.0	—	0.4	—	0.2	0.56	58.3
ESE	1.2	SW	2.0	E	5.7	—	0.1	—	0.1	—	0.0	0.76	74.9
—	0.0	E	3.7	—	0.0	—	0.0	—	0.0	E	1.4	0.55	43.9
E	0.6	E	1.2	—	0.4	E	1.7	SE	0.6	SE	1.2	0.65	48.7
E	1.8	ESE	2.4		0.2	—	0.0	—	0.0	—	0.0	0.52	69.6
—	0.0	—	0.0	—	0.0	—	0.0	E	0.8	—	0.0	0.20	25.1
NE	3.2	E	1.5	—	0.0	—	0.0	—	0.0	NE	0.7	0.75	55.2
NW	1.3	NNE	0.7	NNE	0.7	NNE	0.7	—	0.3	—	0.0	0.76	65.8
S	1.8	SW	1.2	—	0.0	—	0.2	—	0.1	—	0.0	0.53	59.1
SSW	3.1	S	2.6	E	1.6	—	0.4	—	0.0	—	0.0	1.04	70.1
S	4.1	WSW	1.6	E	1.7	—	0.0	—	0.0	—	0.4	0.94	84.8
SW	2.2	NW	2.6	N	1.2	W	0.7	—	0.0	—	0.0	0.81	57.1
S	2.2	SW	0.6	NE	1.3	—	0.2	—	0.0	—	0.0	0.62	50.6
S	1.8	SE	3.2	SE	0.7	—	0.0		0.0	N	1.2	0.89	79.2
	2.05		1.96		0.98		0.30		0.34		0.50	0.92	81.44
S	3.2	S	3.1	E	1.7	—	0.0	—	0.0	ENE	0.5	1.04	99.4
—	0.2	S	3.4	—	0.0	—	0.0	—	0.0	—	0.0	0.47	35.5
SSE	0.7	W	1.7	NE	0.7	—	0.0	—	0.0	NNW	1.0	0.60	52.8
SE	4.6	SSE	4.5	N	2.2	—	0.3	—	0.0	—	0.0	1.68	112.3
S	3.0	SE	2.1	—	0.0	—	0.0	—	0.0	—	0.0	0.95	93.2
SE	3.8	SE	4.2	SSE	1.3	—	0.0	—	0.2	—	0.0	1.44	87.9
SE	2.7	ESE	1.9	E	1.5	—	0.2		0.2	—	0.0	0.77	62.8
—	0.0	—	0.2	—	0.0	—	0.2	—	0.4	—	0.0	0.32	46.9
SE	2.7	SE	3.0	—	0.0	NE	0.8	—	0.0	—	0.0	1.12	88.8
S	6.9	SE	4.7	—	0.0	—	0.0		0.0	—	0.0	1.68	144.8
S	2.4	S	2.2	NE	0.5	NE	1.6	—	0.0	—	0.0	1.33	104.5
SE	2.8	S	1.5	—	0.3	—	0.0	—	0.0	—	0.0	0.67	55.3
	2.67		2.71		0.68		0.26		0.06		0.12	1.00	82.02
	2.23		2.17		0.90		0.29		0.26		0.40	0.95	81.60

明治廿四年八月御嶽

SIMULTANEOUS OBSERVATIONS ON THE SUMMIT

黑

雲量及

AMOUNT AND

at

月 日 Date	午前二時 2 am 量 Amount	午前二時 2 am 形 Form	午前四時 4 am 量 Amount	午前四時 4 am 形 Form	午前六時 6 am 量 Amount	午前六時 6 am 形 Form	午前八時 8 am 量 Amount	午前八時 8 am 形 Form	午前十時 10 am 量 Amount	午前十時 10 am 形 Form	正午 Noon 量 Amount	正午 Noon 形 Form
八月 August												
1	0	s	0	cs,s	5	ck,cs	0	ks	0	ks,c	6	c,ks
2	5	s	10	s	10	ks,cs	10	s	10	n	10	n
3	10	s	10	s	10	ks	10	c,ck	10	n	9	c,ks
4	10	ks	10	ks,s	10	n	10	s,ks	10	n	10	ks
5	10	n,s	10	n	10	s	10	s	10	ks	10	ks,k,cs
6	10	n	10	n,s	10	n	9	s,ck	6	ks,c	10	ks
7	10	n	10	cs,s	10	ks	10	ks,c	8	ks,cs	10	ks
8	1	s	2	s	4	ks	3	cs,ck, ks	8	ck,cs	6	cs,ck
9	8	ks,s	6	s	9	c	7	c	9	c,k	7	c,k
10	5	ks	9	ks,s	9	ks,c	9	ks	10	n	9	c,ks
11	2	s,ks	3	s	7	ks	9	c,ks	10	ks	10	ks
12	1	ks	0	c	5	ks,c	2	ck,ks,c	3	ks,c	3	ks,c
13	10	s	1	ks	10	ck	8	ck,c	6	c,cs,ck,k	7	ks,ck,c
14	0	—	0	s	0	c	0	ck,c	2	c,ks	3	ck,cs
15	10	s	9	s	9	ks	4	ks	0	ks	5	ck
16	0	—	0	s	0	ks	0	ck	2	k,ks	1	k,ks
17	10	n	10	n	10	n	10	n	10	n	10	ks,n
18	10	n	10	n	10	n	10	n	10	ks	10	ks
19	9	ks	4	ks	3	s	0	—	1	ck	7	ks
20	7	ck	1	ck,s	10	ck fog	3	c,cs	7	c,cs	9	c,cs
21	10	ck	10	ks,s	10	ks,s	10	n	10	n	10	n
22	10	n	10	ks	10	ks,ck	10	n	10	n	10	ks,n
23	10	n	10	ks,s	10	n	10	n	10	n	10	n
24	10	ks	10	ck	10	ck	9	ck,ks	10	ks	10	ck
25	9	ck	10	ks	10	ks,ck	4	ck,c,ks	9	cs,ks,ck	10	ck,ks,c
26	3	ck	5	ck	10	ks	10	ks	0	—	0	ks
27	0	—	0	—	0	—	3	c	0	k	4	ks
28	9	ks	6	ck,c	1	c	9	cs,c	8	c,cs,ks	10	cs,ks
29	3	ks	9	ks	10	ks	9	ck,ks	9	cs,ks	4	k,cs
30	0	—	1	ks	10	ck	9	ck	1	c,ck	1	ck
31	0	—	0	—	1	c	0	c	0	—	0	ks
平均 Mean	6.2		6.0		7.5		6.7		6.4		7.1	
九月 September												
1	1	cs	2	ks	9	ks	0	ks	3	ks	2	ks
2	1	s,ks	1	ks	10	s	1	c,ks	9	ck,c,ks	9	ks,c
3	1	ks	8	ks,s	10	ks	6	c,k	8	cs,c,ks	8	cs,c,k
4	2	ks,s	0	s	9	ks,s	10	ks,k	8	ks	1	ks
5	2	s,cs	10	s, fog	10	ks,s	0	ks	0	ks	0	ks
6	1	ks	10	ks	10	ks	0	cs	0	—	1	ks
7	0	—	0	—	10	ck,ks	9	cs,c,ks	8	cs,ck,ks	10	cs,ks
8	10	s	10	n	9	s,ks,ck	10	ks,ck	10	s,ks	10	s,ks
9	10	n	10	n	10	n	10	n	10	n, fog	10	ks
10	10	s	10	s	10	ks,cs	10	cs,ks	8	cs,c	9	ks,cs
11	1	ks	0	—	9	fog, ks	1	ck,ks	2	ks	1	ks
12	6	s,ks	0	s	0	s	0	s	0	ks	0	ks
平均	3.7		5.1		8.8		4.7		5.5		5.1	
四十三日間平均 43 days Mean	5.5		5.7		7.9		6.1		6.2		6.6	

山頂及黒澤同時觀測

OF ONTAKE AND AT KUROSAWA, AUGUST, 1891.

澤

形　狀　（自零至十）

FORM OF CLOUD (0–10)

Kurosawa.

午後二時 2 pm		午後四時 4 pm		午後六時 6 pm		午後八時 8 pm		午後十時 10 pm		夜半 M. N.		平均 Mean
量 Amount	形 Form	量 Amount	形 Form	量 Amount	形 Form	量 Amount	形 Form	量 Amount	形 Form	量 Amount	形 Form	
7	c,cs,ks	5	cs,ks,c	8	cs,c,ks	0	s	2	s	7	s	3.3
10	n	10	n	10	s	10	ks,cs	4	s,ks	8	s	8.9
5	ks,c	5	ks,c	8	c,ks	10	ks	3	ks	9	ks	8.2
10	ks	10	ks,s	10	ks,cs	5	ks	10	s	10	n	9.6
4	ks	10	ks	10	n	10	n	10	n	10	n	9.5
10	ks	9	ks	10	ck,ks	3	s,ks	10	s	9	s	8.8
10	ks	10	n,ks,cs	10	n,ck	6	ks	0		5	cs	8.2
7	c,ck,ks	6	c,k	0	c,k	1	s,ks	0	s	5	cs,s	3.6
4	ks	2	k,ks	0	cs,k	0	ks	0	--	0	ks	4.3
10	ks,c	10	c,ks	10	ks	6	ks	9	s,ks	8	s,ks	8.7
10	ks,c	8	cs,c,ks	10	c,ks,cs	10	s	6	ks	4	ks	7.4
5	ks,k,c	10	cs,c,ks	3	c,ks	2	ck,cs	0	s	8	s	3.5
9	ks,c	7	ks,c	10	cs,c,ck	9	ck,s	3	ck,s	0	- -	6.7
6	ks	7	ks,cs	7	ks	10	ks	9	ck,ks	0	s	3.7
7	ks	0	k	0	ks	0	k	1	ks	0	s	3.7
10	ks	10	ks	10	n	10	ks	10	n	10	n	5.2
10	n	10	n	10	n	10	n	10	n	10	ks	10.0
10	n	10	n	10	ks,ck,c	1	ck	8	ck	2	ck	8.4
5	ck	3	ck,c	6	ck	0	s	5	ck,c,cs	0	s,c	3.6
6	ks,c	7	cs,c	7	c,cs,ks	8	ck,c	10	ck	10	ck	7.1
10	n	10	n	10	n	10	n	10	n	10	n	10.0
10	ks	10	n	10	n	10	n	10	n	10	n	10.0
10	n	10	n	10	ks	9	ks	9	ks,ck	2	ks,cs	9.2
10	ck,ks	10	ks	10	s,ks	10	ks	10	ck,ks	10	ks	9.9
7	c,ck	7	ck,c	1	c,ks	0	—	7	ks,c	7	ks,cs	6.7
3	ck,ks	1	ks	0	k	0	---	0	--	0	--	2.7
8	ks,c	8	ks,c	7	c,k	9	ck,s	0	—	5	ck	3.7
3	ks,cs	1	k	1	c	0	--	0	-	0	s	4.0
2	c,ks	0	c,ks	9	cs,c,ks	0	-	0	--	0	--	1.6
2	c,k	2	ks	0	c	0	--	0		0	—	2.3
2	ks	1	ks	0	ks	0	-	1	ks	10	ks	1.2
7.2		6.7		6.7		5.1		5.1		5.5		6.3
6	ks	1	ks,k	4	ks,c	0	s	3	cs,s	0	s	2.6
9	ks	9	ks,cs	5	cs,ck	0	---	3	ks,s	1	ks	4.8
9	ks,cs	6	k,ks,c	5	cs,c,k	2	ks	2	s	10	ks	6.2
1	ks	2	ks,k	0	ks	0	s	0		0	- -	2.7
0	ks	6	ks	0	ks	0	ks	0	---	0	s	2.3
1	ks	1	ks	0	ck	0	s	1	s	0		2.1
10	cs,ck	10	ks	10	s,ks	8	s	10	s	10	s	7.9
10	ks	10	s,ks	10	ks,s	10	n	10	n	10	n	9.9
10	n	10	ks	10	ks,cs	10	n	9	ks	10	s,fog	9.9
7	n,ks	2	ks	10	n	6	ks	10	ks	1	ks	7.7
1	ks	1	kc	0	ks	0	ks	0	- -	0	s	1.3
0	cs,k	1	ks,c	1	c,ck	0	s	10	n	10	n,s	2.3
5.3		4.9		4.6		3.0		4.8		4.3		5.0
6.6		6.2		6.1		4.5		5.0		5.1		6.0

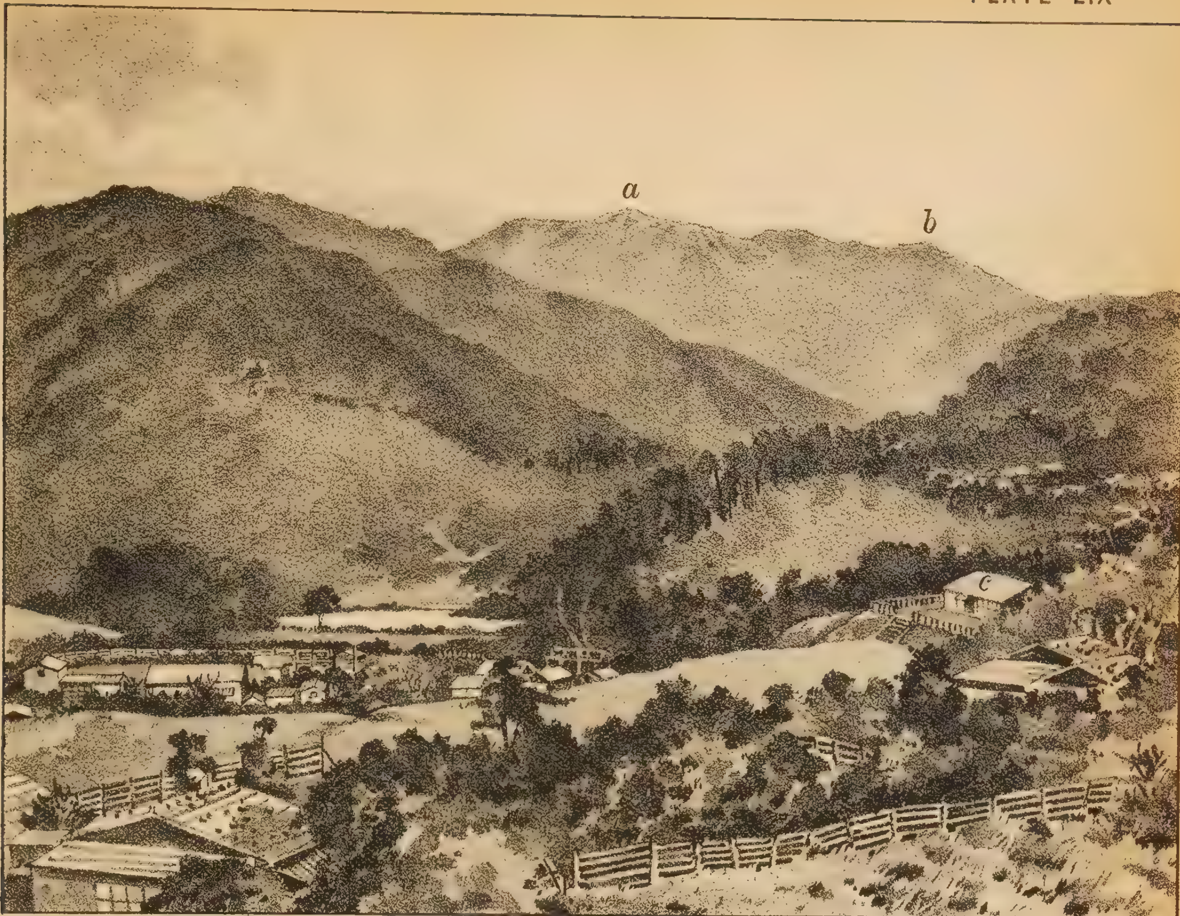
黑澤

記事

REMARKS

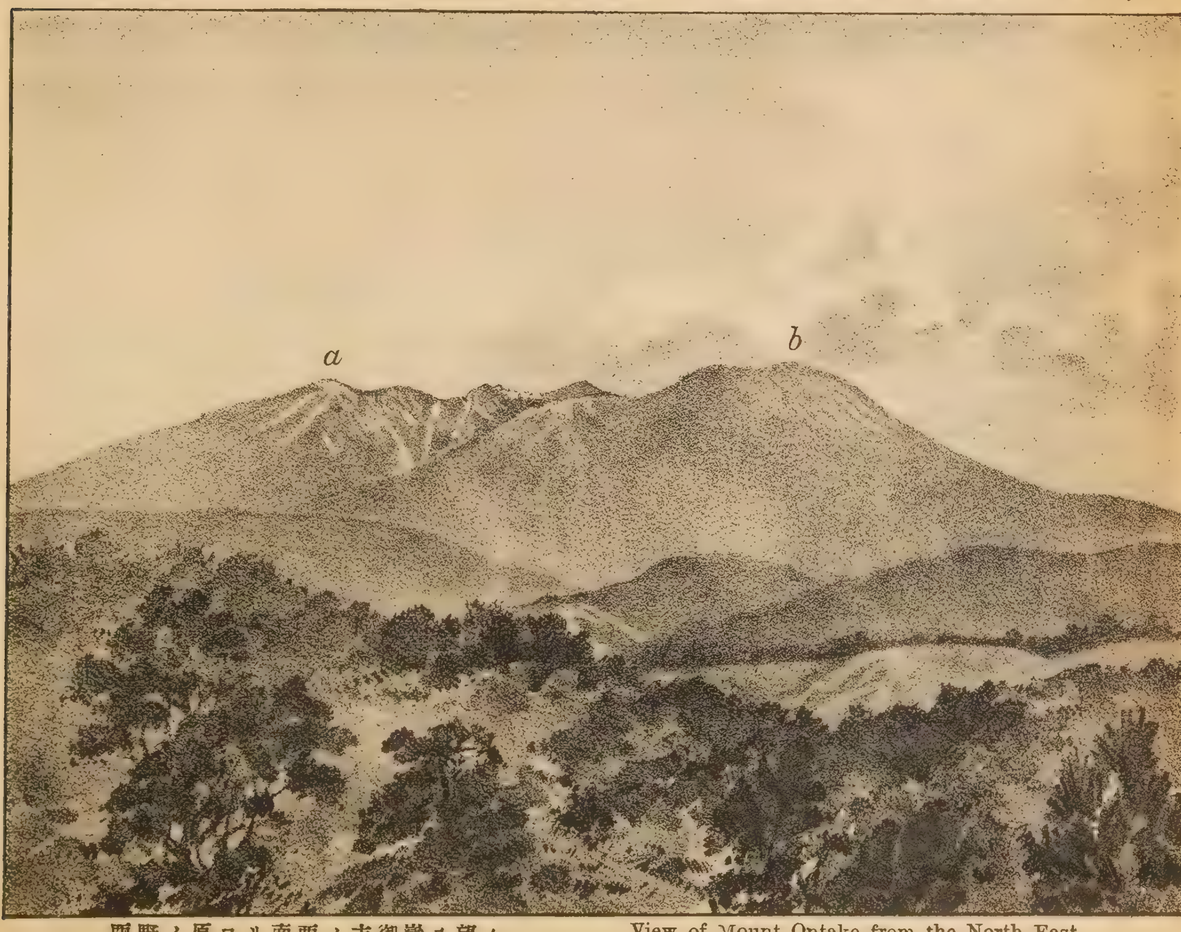
at Kurosawa.

月 日 Date	午前二時 2 am	午前四時 4 am	午前六時 6 am	午前八時 8 am	午前十時 10 am	正午 Noon	午後二時 2 pm	午後四時 4 pm	午後六時 6 pm	午後八時 8 pm	午後十時 10 pm	夜半 M. N.
九月 August												
1	⌓	⌓	⌓	—		—	—	—	—	—	⌓°	⌓°
2	⌓°	⌓	⌓	●°	●°	●°	●, ⊤W	●	●	—	—	⌓
3	●	—	●°	—	●°	●°	●°	●	—	—	●°	—
4	—	●	●	●°	●	⦸10.22a,	—	●	●, ≂	—	⌓	●°
5	●°	●, ⊤W	—	●	●	— ⌊●	●	●, ⊤W,N	●	●	●	●, ≡
6	≡, ●	●	●	—	– –	●	●	—	●, ⌒	—	⌓	⌓
7	●	—	—	═	—	—	●	●	⊤NW	—	⌓	—
8	⌓	⌓	⌓	—	—	—	—	—		⌓	⌓	—
9	⌓	—	—	—	—	-	—	—		⌓	-	—
10	—	⌓	⌓	—	●, ⊤W	●	—	●		K SW	⌓	—
11	⌓	⌓	⌓	—	-	—	..	○	–	⌓	⌓	⌓
12	⌓	⌓	⌓^{2}	—	—	—		—	-	⌓	⌓	⌓
13	⌓	⌓	⌓	—	—	-	—	—	—	⋃, ⌓°	⌓^{2}	⌓^{2}
14	⌓^{2}	⌓^{2}	⌓^{2}	—		—	—	—	—	<°W	< W	⌓
15	⌓	⌓°	—	—	---	—	--	—	--	⌓	⌓^{2}	⌓^{2}
16	⌓^{2}	⌓^{2}	—	—	—	—	—	—	–	●	●	●
17	●	●	●	●	●	●	●	●	●	●, K SW	●, K SW	●
18	●	●	●	●	●	—	●, K	●, K W	●	⌓^{2}	⌓^{2}, Ⓤ	⌓, Ⓤ
19	⌓	⌓^{2}	⌓^{2}	—	—	—	—	—	—	⌓	⌓^{2}	⌓^{2}
20	⌓^{2}	⌓^{2}	⌓^{2}	—	—	○	.	—	-	⌓	⌓^{2}	⌓^{2}
21	⌓^{2}	—	—	●°	●°	●	●	●	●	●	●	●
22	●	●	●	●	●°	●°	●°	●	●	●°	●°	●
23	●	—	●	●	●	●	●	●	●	-	—	—
24	—	⌓	⌓	—	—	—	-	—	●°	⌓°	⌓	●°
25	⌓	⌓	—	—	—	—	-	—	—	—	—	⌓
26	⌓	⌓	⌓	—	—	—	—	—		⌓°	⌓^{2}	⌓^{2}
27	⌓^{2}	⌓^{2}	⌓	—	—	—	-	--	—	⌓	⌓	⌓
28	⌓	⌓	—	—	○	—	—	—	—	⌓°	⌓°	⌓
29	⌓	⌓	—	—	—	—	—	—	—	—	⌓	⌓
30	⌓	⌓	⌓	—	—	--		--	—	⌓°	⌓	⌓
31	⌓	⌓	⌓	—	—	—		-	-	⌓	⌓	⌓
九月 September												
1	⌓	⌓	⌓	—	—	—	--	—	—	⌓	⌓	⌓
2	⌓	—	—	—	—	—	●	●, K S	K S	⌓°	⌓	⌓
3	⌓	⌓	⌓	—	○	○	—	K°S	< E	⌓	⌓	⌓
4	- -	—	—	—	—	—		—	--	⌓	⌓	⌓
5	⌓	⌓	—	—	—	—	—	—	—	—	⌓	⌓
6	⌓	⌓	..	—	—	—	.	-	-	-	⌓	⌓^{2}
7	⌓^{2}	⌓	—	—	-	—	—	-	●°	-	⌓	⌓
8	⌓	●°	—	—	-	—	--	—	●	—	●	●
9	●	●	●	●	●	●°	●	—	●, < N	●	—	≡°
10	—	—	--	○	—	—	●°	-	●°	—	-	⌓
11	⌓	⌓	≡^{2}	—	—	—	—	—	.	-	⌓^{2}	⌓^{2}
12	⌓	⌓	—	—	—	—	—	—	⌓, < SSW	⌓, ●	●	●



合戸峠下ヨリ西ノ方黑澤及ヒ御嶽ヲ望ム

View of Mount Ontake and Kurosawa from the East.
(a=Upper station. b=Mamahaha. c=Lower station.)



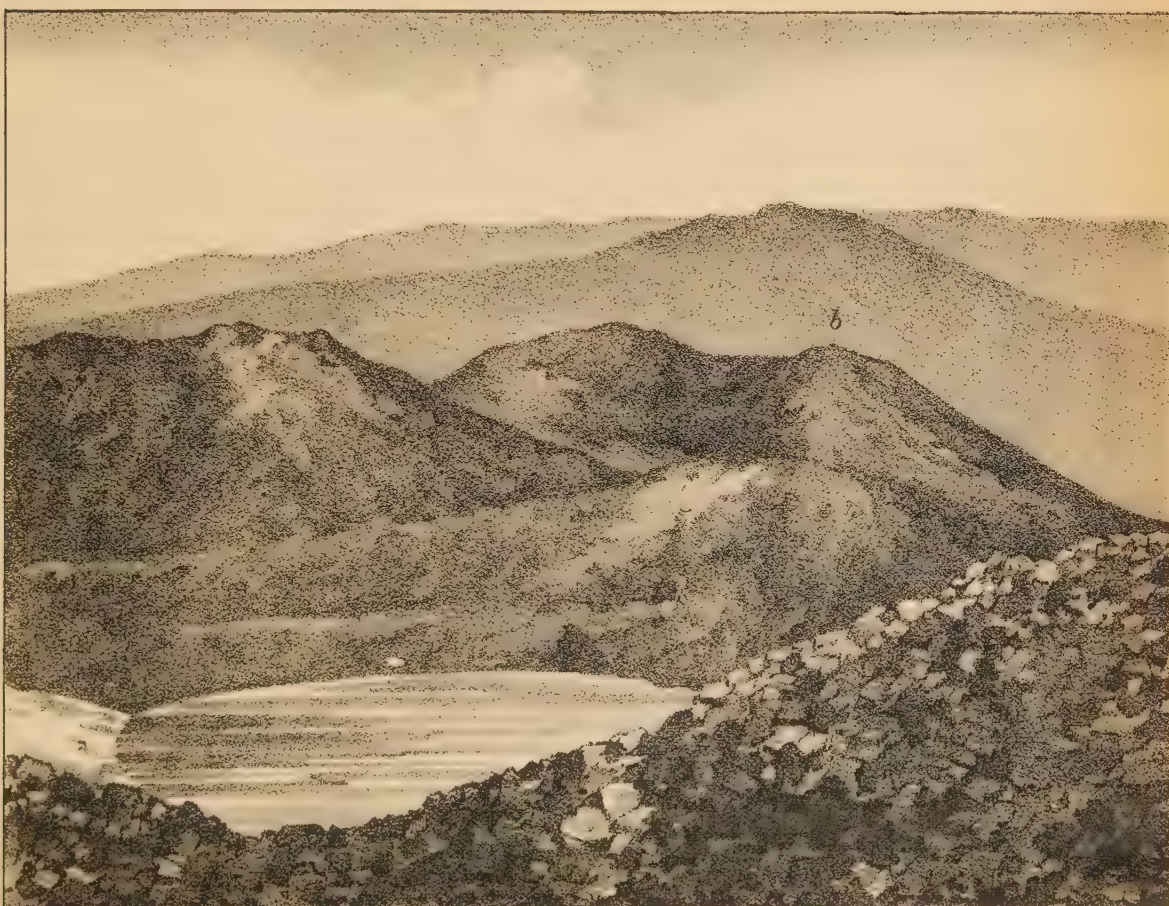
西野ノ原ヨリ南西ノ方御嶽ヲ望ム

View of Mount Ontake from the North-East.

第六十圖 PLATE LX



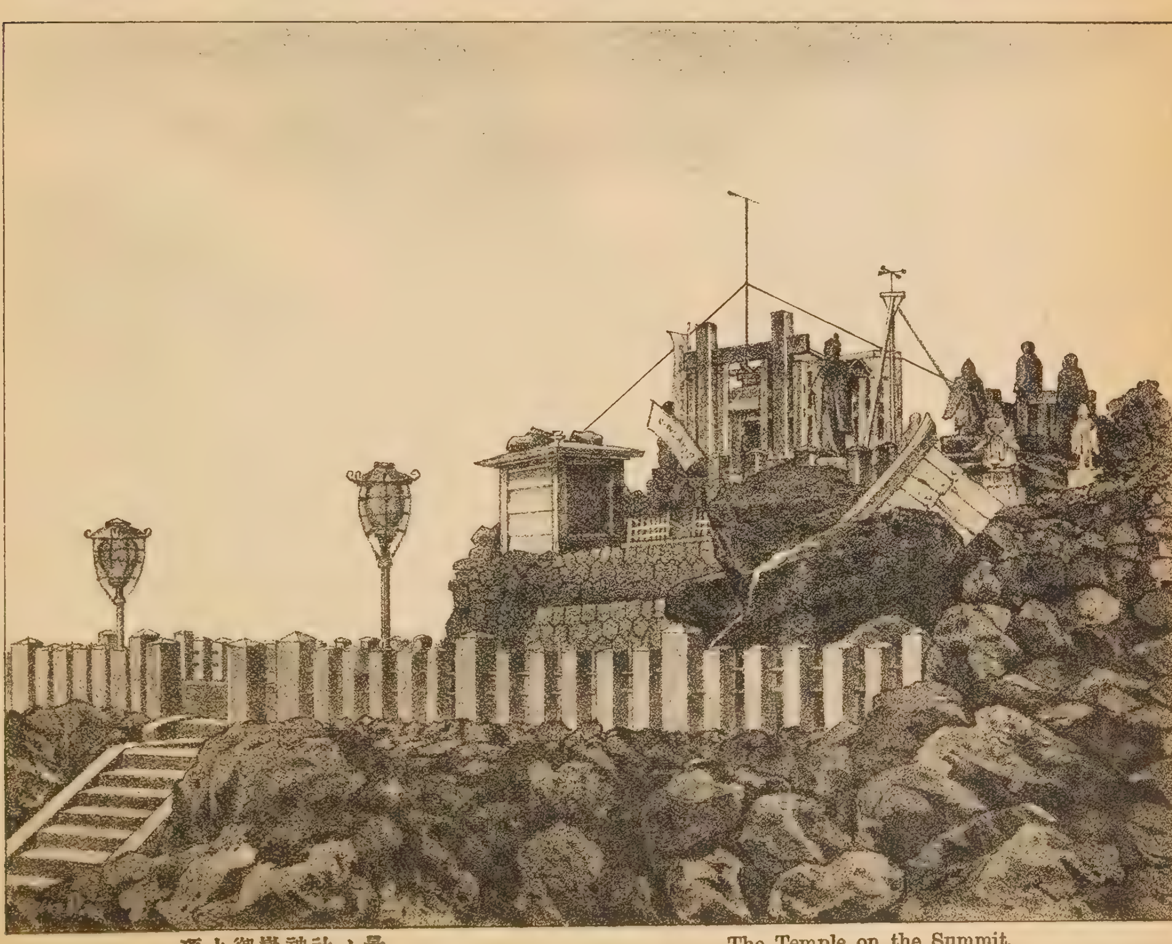
繼母嶽ヨリ南ノ方御嶽頂上ヲ望ム View of Kengamine (a) from Mamahaha.



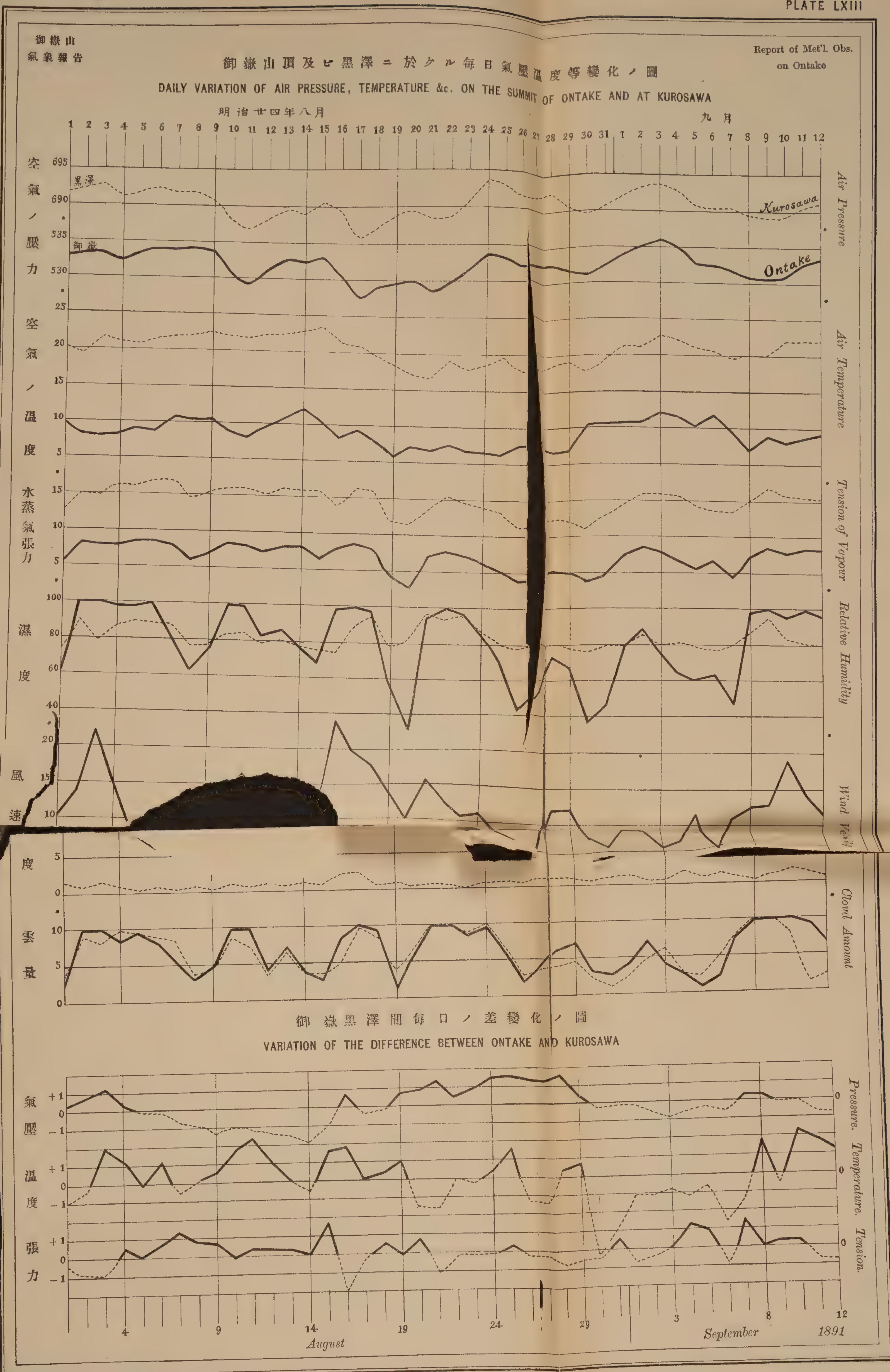
劍ケ峯北東側ヨリ北ノ方繼母嶽ヲ望ム View of Mamahaha (b) from Kengamine.



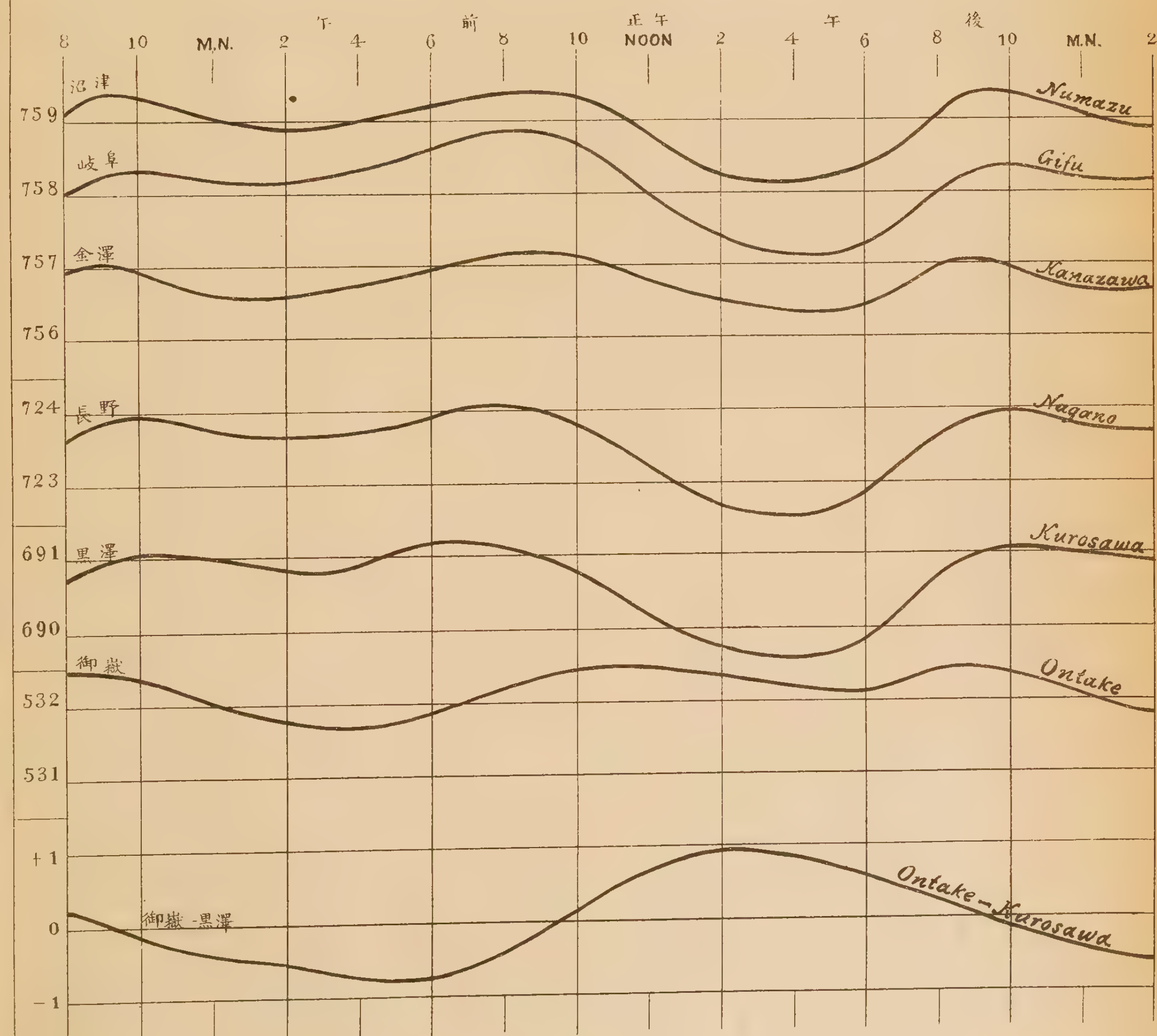
劍ヶ峯南東面ノ景 View or Kengamine (upper station) from the South-East.

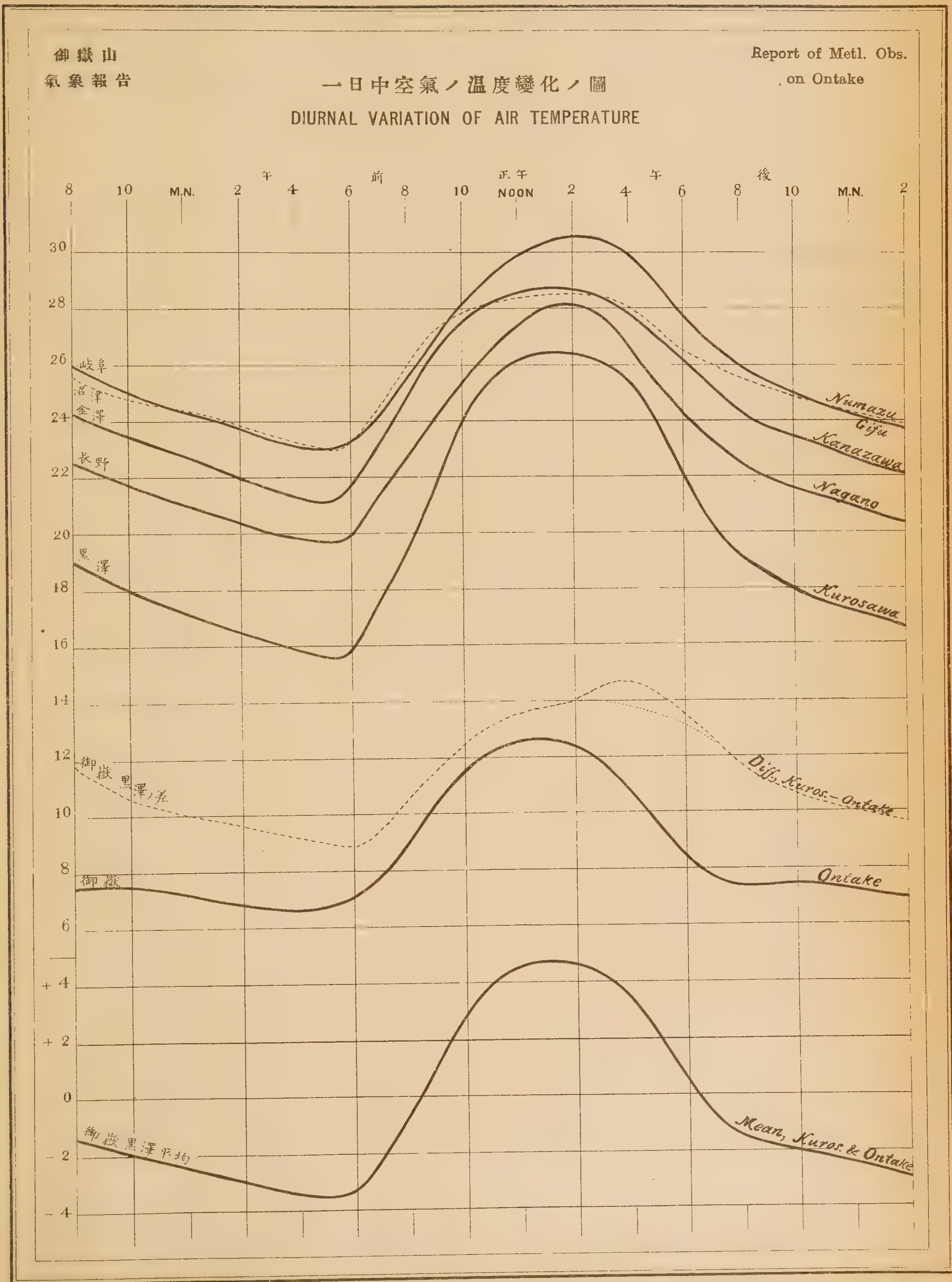


頂上御嶽神社ノ景 The Temple on the Summit.

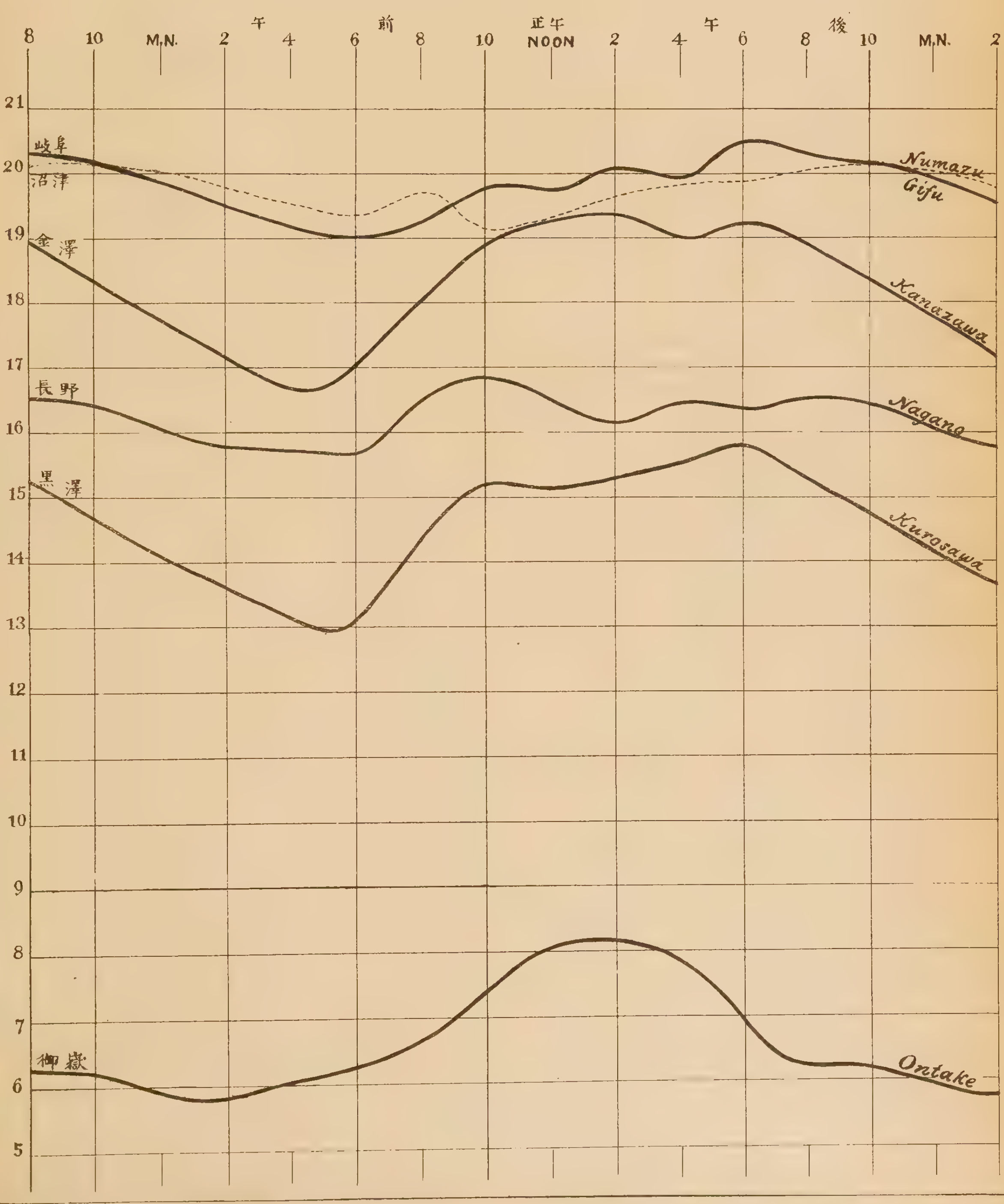

御嶽山
氣象報告
Report of Met'l. Obs.
on Ontake
御嶽山頂及ヒ黒澤ニ於ケル毎日氣壓温度等變化ノ圖
DAILY VARIATION OF AIR PRESSURE, TEMPERATURE &c. ON THE SUMMIT OF ONTAKE AND AT KUROSAWA
明治廿四年八月
九月
空氣ノ壓力
空氣ノ温度
水蒸氣張力
濕度
風速度
雲量
黒澤
御嶽
Kurosawa
Ontake
Air Pressure
Air Temperature
Tension of Vapour
Relative Humidity
Wind Velocity
Cloud Amount
御嶽黒澤間毎日ノ差變化ノ圖
VARIATION OF THE DIFFERENCE BETWEEN ONTAKE AND KUROSAWA
氣壓
温度
張力
Pressure.
Temperature.
Tension.
August
September
1891

一日中氣壓變化ノ圖
DIURNAL VARIATION OF AIR PRESSURE.



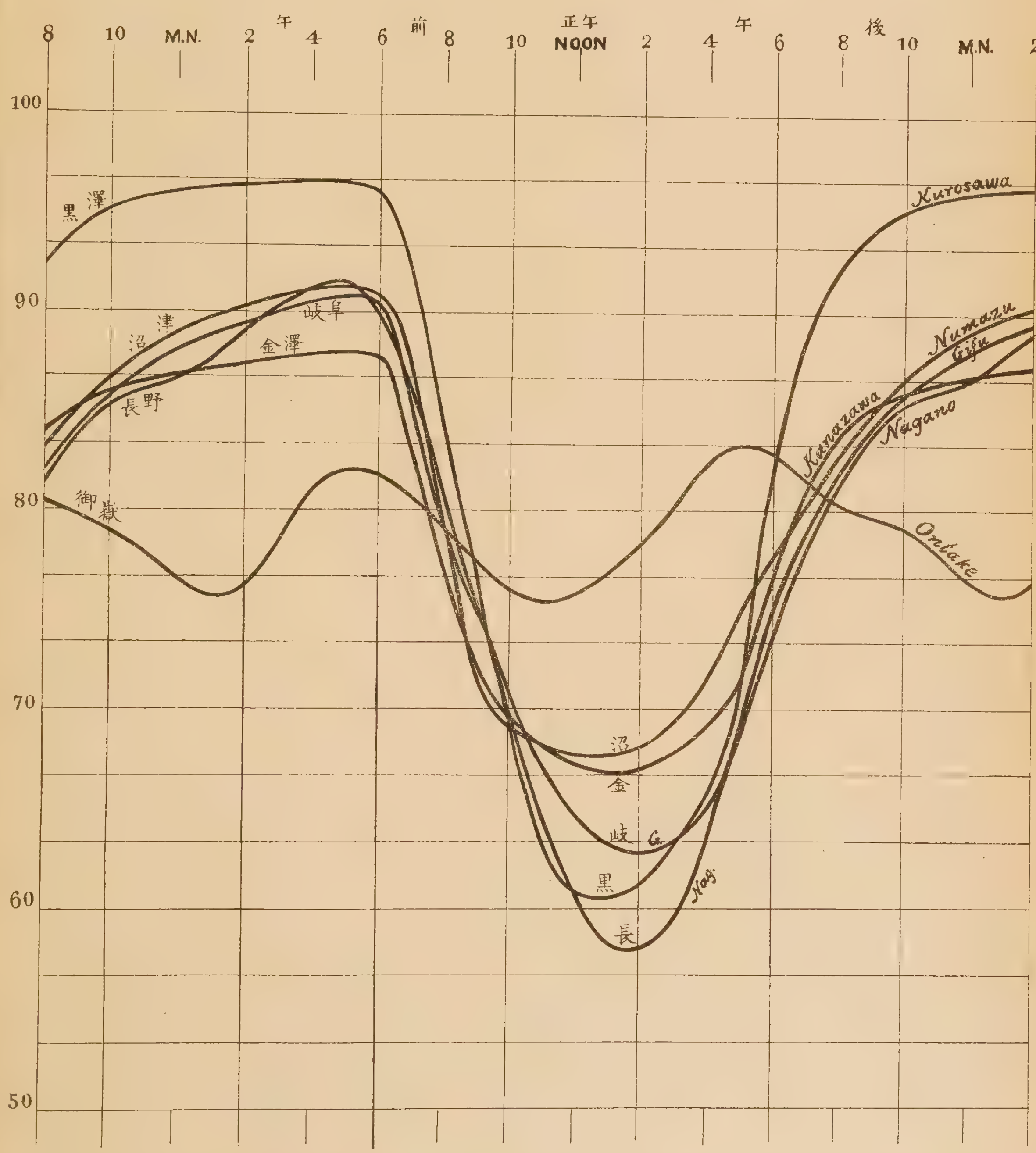

御嶽山
氣象報告
一日中空氣ノ溫度變化ノ圖
DIURNAL VARIATION OF AIR TEMPERATURE
Report of Metl. Obs. on Ontake
午前
正午
NOON
午後
8
10
M.N.
2
4
6
8
10
2
4
6
8
10
M.N.
2
30
28
26
24
22
20
18
16
14
12
10
8
6
+ 4
+ 2
0
- 2
- 4
岐阜
沼津
金澤
長野
黒澤
御嶽黒澤ノ差
御嶽
御嶽黒澤平均
Numazu
Gifu
Kanazawa
Nagano
Kurosawa
Diff. Kuros.-Ontake
Ontake
Mean, Kuros. & Ontake

一日中水蒸氣ノ張力變化ノ圖
DIURNAL VARIATION OF TENSION OF VAPOUR



御嶽山
氣象報告
Report of Met'l. Obs.
on Ontake

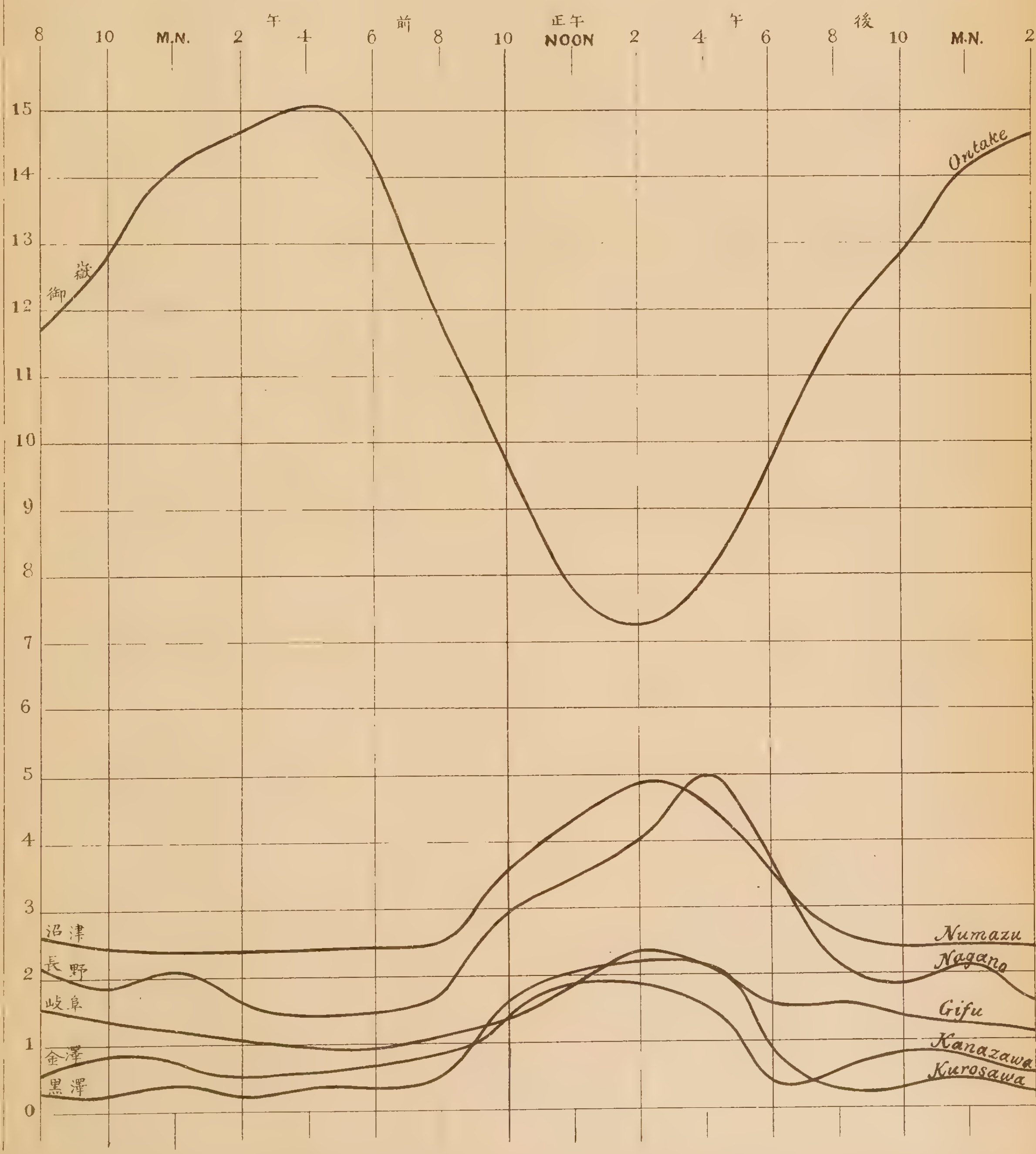
一日中濕度變化ノ圖
DIURNAL VARIATION OF RELATIVE HUMIDITY



御嶽山
氣象報告

Report of Metl. Obs.
on Ontake

一日中風速度變化ノ圖
DIURNAL VARIATION OF WIND VELOCITY



日午後六時ノ觀測ヨリ十七日午後六時ニ至ル迄ノ總計ハ一七一粍二ナリ

今回暴風中心ノ經過ヲ見ルニ十六日午後二時ニ七三六粍ノ深低氣壓土佐海岸ヨリ襲來シ四國山陽山陰ヲ横斷シ日本海ニ出テ能登半島佐渡沖ヲ廻クリ再ヒ羽前陸奥ヲ經テ太平洋ニ出テ走リタルカ如シ而テ山頂ニ於テ風力最猛烈ナル時ハ中心ノ山陰ノ陸地ヲ離レ日本海ニ入ラントスル時ナリ又最モ山頂ニ接近セシハ十七日午前二時ト三時ノ間ニ於テ金澤沖ニ横ハリシ時ニシテ其距離蓋シ三四十里ノ間ニ在リテ山頂最低氣壓ヲ示セシ時ト符合セリ又十六日午後二時九時及ヒ十七日午前六時午後二時九時ニ於ケル山頂ノ風向ハ皆殆ト各時ノ同壓線ニ平行セリ

飛シ一歩モ進ム能ハス僅カニ地上ニ匍匐シテ行クモ尚ホ吹倒セラレントセリ半ハ地下ニ埋メタル雨量計モ傾キ風信器ハ疾ニ毀チ去リ何レニ飛散セシヤ知ル可ラス（後數日ニシテ三ノ池近傍ニ在ルチ發見セリ）始メ風信器ハ高サ三間ノ竿頭ニ設ケ之ヲ玉垣ノ石柱ニ結附ケタリシニ其玉垣モ遂ニ折破セルニ至レリ十七日午前二時三十分晴雨計五二三粍一ニ降ル是レ即チ觀測セシ最低ナリ是レヨリ晴雨計モ漸ク上昇ノ色アリ風力モ亦大ニ減殺スト雖モ尚ホ終日風雨十八日午後五時ニ至リ突然濃霧飛散シ四方ヲ望メハ山下ハ疾ヨリ晴天山頂ノミ霧ニ覆ハレタリシモノヽ如シ暴風中最猛烈ナリシ前後ノ觀測ヲ擧クレハ左ノ如シ

日時	晴雨計	温度	風 方向	風 速度	記事
十六日午後六時	五二九、一	八、五	南	二二、七	雨霧
仝 仝八時	五二八、九	七、七	南	二三、〇	雨霧
仝 仝十時	五二六、一	八、四	南	二七、一	雨霧
仝 仝十一時卅分	—	—	南	四五、二	雨霧 寒暖計室破壞ス
仝 夜半	五二四、四	九、四	南西	三三、五	雨霧
十七日午前零時卅分	五二三、三	八、三	南西	四四、三	雨霧
仝 仝一時	五二四、三	八、三	南西	三二、五	雨霧
仝 仝一時卅分	五二四、四	八、六	南西	三三、七	雨霧
仝 仝二時	五二三、八	九、三	南西	三〇、三	雨霧
仝 仝二時卅分	五二三、一	九、四	南西	三一、四	雨霧
仝 仝三時	五二三、五	八、九	南西	三一、一	雨霧
仝 仝三時卅分	五二四、〇	九、五	南西	三六、四	雨霧
仝 仝四時	五二四、六	九、三	南西	二五、〇	雨霧
仝 仝五時	五二五、二	九、六	西	二六、二	雨霧
仝 仝六時	五二五、三	九、四	西	二二、一	雨霧

雨量ハ毎觀測時ニ測ル能ハス十六日午後十時ヨリ十七日午後迄ニ七七粍九ヲ得タリ而テ暴風中即チ十六

ナラサルヲ以テ前ニ算定セル御嶽ノ高サハ其眞ノ高サヨリ高シトスルモ其差ハ午前四時ト正午トノ差ノ半ニモ及ハサルヘシ

八月三日四日ノ暴風

一日午後十時頃ヨリ山頂ハ天氣陰鬱濃霧ニ覆ハレ風力漸次加ハリ風向西方ヲ左右セリ晴雨計モ亦稍下降ノ狀ヲ呈ス二日午前雨霧交降シ午後南西或ハ北方ニ雷電アリ夜ニ入リ十時頃時々星影ヲ認メ晴雨計モ上昇シ稍々好天氣ニ向ハントスルノ兆アリシニモ拘ハラス三日終日濃霧加ハルニ降雨シ午後ニ至リ晴雨計陸續降下シ風向南西或ハ南々西ニ轉スルヤ速度急烈トナリ午後十時ニ於テ三七米三ヲ走レリ晴雨計ハ四日午前二時ニ最低五三一粍〇ニ達セリ爾後風力モ次第ニ減殺シ晴雨計モ亦上昇シ仝午前六時過雨霧共ニ霽レ蒼天ヲ仰クヲ得タリ今回ノ暴風ハ三日午前六時朝鮮海峽ニ横ハリシ甚タ深カラサル一低氣壓ノ日本海ニ入リ北東ニ向ヒ直進セシモノヽ波及セシ所ニシテ當時又一ノ高氣壓南東海岸ニ横ルアリテ山頂ハ恰モ該兩氣壓ノ中間ニ在リ而シテ四日夜半ノ頃ニ最モ其低氣壓中心ニ接近セシト雖トモ其距離甚近カラス從テ風幷氣壓ニ著シキ變動ヲ見サリシナリ

八月十六日十七日ノ暴風

八月十六日午前ヨリ濃霧襲來シ晴雨計下降シ天氣險惡ノ兆ヲ示ス午後晴雨計益々下降シ風向南ヲ占メ頗ル猛烈トナル夜ニ入リ風雨彌烈シク十一時半頃遂ニ寒暖計室破壞顚倒セリ始メ寒暖計室ヲ作クルヤ既ニ富士山暴風ノ經驗アリ當山頂又此暴風ノアルヲ察シ頗ル堅固ニ建設セシニモ拘ハラス遂ニ風力ノ猛烈ニ敵スル能ハサリシ此時ノ風速度實ニ四五米二(二十分時間ノ平均)ニシテ今回暴風ノ最強速度トス當時風力計電氣盤示針ノ運轉スルハ時辰儀ノ秒針ノ運轉スルカ如ク又以テ速度ノ急激ナルヲ察スルニ足ランヤ晴雨計ハ下降甚シク殊ニ動搖強ク一降一昇二粍餘ニ及ヘリ戶外ハ濃霧四塞咫尺ヲ辨セス殊ニ風力猛烈ニシテ砂石亂

其御嶽ヲ通過スルモノハ岐阜ノ東ヨリ長野ノ西ニ出テ西側即チ金澤ノ方ハ氣壓低ク東側即チ沼津ノ方ハ高キヲ見ル而シテ四測候所ノ中ニテ最モ御嶽ニ近キハ岐阜ニシテ且ツ前掲セル如ク四ケ所ノ観測ニ基キテ算出セル御嶽ノ海面ヲ距ル高サノ平均ハ岐阜ニ基キタルモノ最モ近キカ故ニ寧ロ四ケ所ノ平均ヲ取ラスシテ單ニ岐阜ニ基キタルモノヲ以テ最モ眞ニ近キモノト見テ可ナラン

然レ𪜈又岐阜ノ温度ハ稍高キニ過クルノ感アリ依テ試ニ四測候所ト山頂間温度遞減率ノ平均ヲ用ヒ山頂ノ温度ニ基キテ倒ニ岐阜ノ高サニ相當セル温度ヲ算出スレハ二五度七二ヲ得(岐阜ノ實測温度ヨリ低キヿ〇度六三)今此温度幷ニ岐阜ノ氣壓及ヒ水蒸氣張力ヲ以テ御嶽直下岐阜ノ高サニ於ケルモノト見做セハ御嶽観測所ノ海面ヲ距ル高サハ　三〇五二米四
トナルヘク又黒澤観測所ノ海面ヲ距ル高サハ八三三米〇トナリ之ニ黒澤ノ観測ニ基キタル黒澤御嶽間ノ高サヲ加フレハ　三〇四九米四
ヲ得ヘシ即チ平均　三〇五〇米九
ニシテ恰モ御嶽ヲ通過セル同壓線ノ左右ニ於テ最モ之ニ近接セル岐阜及ヒ長野ノ観測ニ基キテ算出セル數ノ平均ニ等シ而シテ御嶽観測所ノ晴雨計ハ絶頂巖頭ヨリ低キヿ一八米四ナリシカ故ニ今之ヲ観測所ノ高サニ加ヘ

御嶽絶頂巖頭ノ海面ヲ距ル高サハ　三〇六九米

トシテ大差ナカルヘシ

蓋シ氣壓ニ據リ夏季ニ於テ測量シタル山ノ高サハ冬季ヨリモ高シト云ヘリ今試ニ一日中山頂黒澤間平均温度ノ最高ナル正午ト其最低ナル午前四時ノ結果ヲ比較スレハ正午ノ温度ハ午前四時ヨリ高キヿ七度〇六ニシテ山ノ高サモ亦正午ニ於テ高キヿ四三米〇ナルヲ見ル然レ𪜈四十三日間毎五日ノ平均ニ就テ兩所平均温度ノ最高ナル塲合(九月三日ヨリ七日ニ至ル平均温度一六度〇五)ト其最低ナル塲合(八月十九日ヨリ二十三日ニ至ル平均温度一二度三七)トヲ比較スレハ温度ノ差ハ三度六八ニシテ高サノ差ハ僅ニ〇米九ニ過キス要スルニ上下平均温度ノ高キニ過キ或ハ低キニ過キ又上下空氣ノ不釣合ナル等ノ事情アリテ季節時刻或ハ天氣ノ摸樣等異ナル𪜈ハ必シモ同一ノ結果ヲ得ヘカラスト雖年中氣象ノ變化ハ一日中ノ如ク急

御嶽並ニ黑澤觀測所ノ海面ヲ距ル高サ

從來御嶽ノ高サハ氣壓ノ觀測ニ基キテ之ヲ算測シタル者アルヘシト雖蓋シ僅々數回ノ觀測ニ過キサルヘシ今ヤ晝夜四十三日間ノ氣象觀測ハ一層眞ニ近キ高サヲ與フルモノナルヘシト信スルヲ以テ玆ニ先ツ萬國氣象觀測常用表中氣壓ニ據リテ其地ノ高低ヲ算出スルニ用ユヘキルールマン公式ヲ揭ケン

$$Z=18400\ (1{,}00157+0{,}003670\theta)\left(\frac{1}{1-0{,}378\frac{\varphi}{\eta}}\right)(1+0{,}00259\cos 2\lambda)\left(1+\frac{Z+2z}{6371104}\right)\log\frac{H_{o}}{H}$$

此公式中Zハ兩所間高低ノ差、θハ兩所間ノ平均溫度、φハ兩所間平均水蒸氣張力、ηハ兩所間平均氣壓、λハ兩所平均緯度、Zハ概算兩所高低ノ差、zハ低所ノ海面ヲ距ル高サ、H_{o}ハ低所ノ氣壓、Hハ高所ノ氣壓ナリ而シテ之ニ要スル各所ノ數ハ左ノ如シ

觀測所	緯度	海面上ノ高サ	氣壓	溫度（攝氏）	水蒸氣張力
御嶽	三五度五三分	……	五三二粍一三	八度九五	六粍七八
黑澤	三五度五〇分	……	六九〇粍五七	二〇度五二	一四粍五九
岐阜	三五度二七分	一五米〇	七五八粍〇九	二六度三五	一九粍八六
金澤	三六度三三分	二九米〇	七五六粍七七	二四度九五	一八粍三五
長野	三六度四〇分	四二〇米四	七二三粍四九	二三度三四	一六粍二四
沼津	三五度〇六分	一〇米五	七五八粍九〇	二五度八〇	一九粍六六

右ニ揭クル四測候所ノ觀測ニ基キテ御嶽幷ニ黑澤觀測所ノ海面ヲ距ル高サヲ算出スレハ左ノ如シ

觀測所	岐阜ニ基キ	金澤ニ基キ	長野ニ基キ	沼津ニ基キ	平均
御嶽	三〇五五米六	三〇六八米三	三〇四六米一	三〇六〇米〇	三〇五七米五
黑澤	八三三米九	八三〇米三	八二六米八	八三七米九	八三二米二

更ニ黑澤ノ觀測ニ基キテ同所ヨリ御嶽觀測所マテノ高サヲ算出スレハ二二一六米四ニシテ之ニ黑澤ノ海面ヲ距ル高サヲ加フレハ御嶽觀測所ノ海面ヲ距ル高サ三〇四八米六ヲ得

試ニ八月一日ヨリ九月十二日ニ至ル全國各測候所ノ平均氣壓ヲ地圖面ニ記シテ此期ノ同壓線ヲ畫スレハ

一日中ノ雲量ハ左ノ如シ

觀測所	午前二時	午前四時	午前六時	午前八時	午前十時	正午	午後二時	午後四時	午後六時	午後八時	午後十時	夜半	平均
御嶽	五、七	五、六	六、〇	六、三	七、一	八、四	八、七	八、三	六、五	四、三	五、三	五、六	六、五
黒澤	五、五	五、七	七、九	六、一	六、二	六、六	六、六	六、二	六、一	四、五	五、〇	五、一	六、〇
御嶽ノ差方	多 〇、二	少 〇、一	少 一、九	多 〇、二	多 〇、九	多 一、八	多 二、一	多 二、一	多 〇、四	少 〇、二	多 〇、三	多 〇、五	多 〇、五

本表ニ據レハ兩所共ニ夜間ヨリモ晝間ニ雲多ク殊ニ山頂ニ於テ然リトス概シテ雨量ト符合セリ而シテ平均ハ山下ヨリモ山頂ニ於テ稍多シ蓋シ黒澤ノ天ハ山頂ノ如ク廣カラス故ニ觀測ノ際或ハ多キニ過キ或ハ少キニ失スルヿアルヘシ然レモ山頂ニ於テモ亦積雲近ク四方ニ起リ恰モ雲ノ洞中ニ在ル思ヲナスヿアリ或ハ僅ニ山頂ヲ距レハ忽チ青天ヲ見得ヘキ塲合ニ於テ山頂ノミ雲霧ニ襲ハレ他モ亦斯ノ如ク曇天暗黒ナルカト思ヒタルヿモアリキ若シ此霧ト積雲ノ上部ヲ除クハ山頂ノ雲量ハ主トシテ上層雲ニ屬ス今毎觀測時ニ就テ霧ニ襲ハレタル回數ヲ擧レハ左ノ如シ

觀測所	午前二時	午前四時	午前六時	午前八時	午前十時	正午	午後二時	午後四時	午後六時	午後八時	午後十時	夜半	合計
御嶽	二一	二一	一七	一八	二〇	二三	二二	二〇	一七	一三	一八	一九	二二九

即チ霧ノ最多ナルハ正午ニシテ最少ハ午後八時ナリ概シテ朝夕ニ霧少ナシトス而シテ合計二百二十九回ヲ一日中ノ觀測回數十二ニテ除スレハ十九ヲ得即チ四十三日中十九日間ハ全ク霧中ニ包マレシナリ、霧中ニ在リテハ他ノ摸樣ヲ眺ムル能ハスト雖其前後ニ就テ察スルニ蓋シ御嶽ハ他山ニ比シテ雲霧ニ襲ハルヽヿ多キカ如シ

又八月一日ヨリ九月五日ニ至ル三十六日間山頂ニ日照計ヲ假設シテ觀測シタル成蹟ニヨレハ幾分カ紙上ニ日照ノ痕跡ヲ遺シタル日數ハ合計二十二日即チ十分ノ六餘ニシテ午前八時ト十時ノ間ニ最モ多ク正午ヨリ午後三時ニ至ル間ハ其半ニ過キサリキ

米二ニシテ若シ更ニ短時間ノ觀測ヲ行ヘハ或ハ之ニ倍セル速度アリシナランヽト思ハレタリ此際ニ於ケル摸様ハ別項暴風記事中ニ述フルカ如シ而シテ黒澤ニ於ケル最大風速度ハ八月十七日午前八時ニ於ケル八米〇トス

雨

山頂ノ雨量計ハ小屋ノ近傍ニ相當ノ地面ナキヲ以テ之ヲ絶頂ニ据附ケタリ然ルニ山頂ハ降雨ノ際風力モ亦一層強キヲ常トナス故ニ最初ヨリ觀測ノ困難ヲ慮リテ其回數ヲ一日六回ト定メタリ即チ各觀測時ノ總量及ヒ雨天日數ハ左ノ如シ

觀測所	雨量(粍) 午前二時	午前六時	午前十時	午後二時	午後六時	午後十時	合計	雨天日數
御嶽	一四一、九	一四七、四	一四九、一	一四六、三	一〇一、四	八二、一	七六八、二	二四
黒澤	六六、七	七七、四	七八、九	四〇、二	三四、二	三〇、三	三二七、七	一七
差 御嶽多ノ方	七五、二	七〇、〇	七〇、二	一〇六、一	六七、二	五一、八	四四〇、五	七

雨量ハ山下各所概ネ皆午後ヨリモ午前ニ多シトス而シテ山頂モ亦然リ唯其總量ニ至リテハ山頂ニ於テ頗ル多キヲ見ル富士山ノ如キ御在所嶽ノ如キ亦然リ叉雨天日數モ御嶽ハ黒澤ヨリ多キヿ七日ニシテ此七日間ノ雨量合計ハ、三粍八トス今之ヲ七六八粍二ヨリ引キ去ルモ黒澤ノ雨量ハ御嶽ノ半ニ及ハサルナリ御嶽ニ於テハ御在所嶽ニ於テ實見セシカ如キ叉低地ニ於テ大雨ノ際ニ見ルカ如キ大粒ノ雨ハ曾テ見サリキ概シテ山頂ノ雨ハ小粒ニシテ密ナルカ如シ而シテ御嶽ニ於ケル四時間ノ最多量ハ八月廿一日午後十時ヨリ翌廿二日午前二時ニ至ル五八粍九ニシテ黒澤モ亦八月十七日午前四時ヨリ八時ニ至ル間ニハ五二粍九ヲ得タリ

雲

即チ黒澤ニ於テハ過半無風ニシテ殊ニ午後八時ヨリ翌午前八時ニ至ル間ハ十回ノ觀測中八回ハ無風ナル割合ナルニ山頂ニ於テハ一回モ無風ナク黒澤ノ最多風向ハ南、次キハ南東ニシテ西風ヨリモ東風多キニ山頂ハ西風最多ヲ占メ東風ハ皆無ナリ概シテ山頂ニ於ケル東半面ノ風ハ晝間上騰氣流強盛ニシテ風向錯亂セル時ニアリ故ニ其力モ亦西風ノ如ク強カラサルヲ常トス即チ北ヨリ南々東ニ至ル東面三十六回觀測ノ平均風力ハ一秒間僅ニ四米七ニシテ其内南々東ニ於テ二七米三ニ達シタルモノ一回及ヒ南東ニ於テ一一米二ニ達シタルモノ一回ヲ除クノ外ハ曾テ一〇米以上ニ達シタルコトナシ而シテ風力ノ最強ナルハ南風ニシテ一秒時間平均一七米四次キハ南々西風ニシテ一五米九ナリ此風ハ多ク颶風ノ際ニアリ若シ西風南ニ轉シ濃霧ヲ伴フトキハ異常天候ノ確徴ナリトス

又一日中風速度(一秒時間米)ノ變化ハ左ノ如シ

觀測所	午前二時	午前四時	午前六時	午前八時	午前十時	正午	午後二時	午後四時	午後六時	午後八時	午後十時	夜半	平均
御嶽	一四、六四	一五、〇八	一四、二八	一一、八〇	九、七三	七、七五	七、二七	七、九五	九、六八	一一、六七	一二、八四	一四、一七	一一、四一
黒澤	〇、二四	〇、三六	〇、三五	〇、四九	一、六二	二、〇七	二、二三	二、一七	〇、九〇	〇、二九	〇、二六	〇、四〇	〇、九五
差ノ御嶽方強	一四、四〇	一四、七二	一三、九三	一一、三一	八、一一	五、六八	五、〇四	五、七八	八、七八	一一、三八	一二、五八	一三、七七	一〇、四六

之ヲ以テ曲線ヲ畫スレハ第六十八圖ノ如シ

即チ山頂ニ於テハ一日中疾風以下ノ風ナキカ如ク平均ニ於テ既ニ強風ニ垂トス其殊ニ山下ト異ナルハ強弱時刻ノ相反スルニアリ畢竟晝間ニ於テ山頂風力ノ減殺スルハ昇騰氣流ノ作用ニシテ夜間ニ於ケル風力ハ即チ山頂ノ本色ト云フヘキナリ而シテ其方向ノ西勝ナルハ此緯度ニ於ケル上層氣流ノ持前ニシテ雲行觀測ノ結果ト符合ス即チ通常下層ニ流行セル風トハ全ク別物ナルヲ知ルヘシ

晝間ノ昇騰氣流ハ時ニ頗ル強盛ナルヲ實見セリ一條ノ雲氣突然山麓森林ノ中ヨリ立チ上リ忽チニシテ巨大ナル積雲ヲ成形ス又紙片或ハ鉋屑ノ如キ輕粗ナル物体ヲ取テ試ニ之ヲ中空ニ向ヒ抛ケ上クレハ忽チ飄々トシテ高ク舞昇シ殆ト視失ハントスルニ至ルコアリ

山頂ニ於ケル最大風速度ハ八月十六日午後十一時十分ヨリ同三十分ニ至ル二十分時間平均一秒時間四五

觀測所	御嶽	黒澤	御嶽ノ差
午前二時	七六、一	九六、四	乾二〇、三
午前四時	八〇、七	九六、八	乾一六、二
午前六時	八一、七	九六、〇	乾一四、三
午前八時	七九、二	八四、三	乾五、一
午前十時	七五、九	六九、二	濕六、七
正午	七五、九	六〇、八	濕一五、一
午後二時	七八、三	六一、〇	濕一七、三
午後四時	八二、三	六五、七	濕一六、六
午後六時	八二、九	八〇、九	濕二、〇
午後八時	八〇、三	九二、一	乾一一、八
午後十時	七九、〇	九五、二	乾一六、二
夜半	七六、四	九六、一	乾一九、七
平均	七九、〇	八二、九	乾三、九

又之ヲ以テ曲線ヲ畫スレハ第六十七圖ノ如シ

即チ山下各所ノ濕度ハ一日中單ニ一回ノ浮沈ヲナスノミニシテ其最高最低ハ恰モ温度ニ反對ノ時刻ニ於テ生スレ𪜈山頂ニハ二回ノ浮沈アリテ其第二ノ最低ハ恰モ水蒸氣張力ノ最低時刻ニ於テ生ス蓋シ濕度ハ温度ニ相當セル水蒸氣ノ量ト其現在ノ量トノ比例ニ外ナラス而シテ山頂ニ於テ温度ト水蒸氣張力ト各最低時刻ヲ異ニセルハ前ニ既ニ之ヲ記セリ又第六十七圖ニ據レハ山頂ニ於クル濕度ノ變化ハ山下ニ比シテ甚タ小ナルカ如クナレ𪜈日々時々ノ變化ハ全ク之ニ反ス即チ第六十三圖ノ如ク山頂ニ於テ急且大ナリ今五百十六回ノ觀測中濕度ノ飽和ニ達シタル塲合ヲ算スレハ山頂ニ於テ二百三回アリ是レ皆濃霧ノ襲來セシカ爲メナリ又黒澤ニ於テハ十七回アリ而シテ黒澤ノ最低ハ八月三十日正午及午後二時ニ於クル三九ナレ𪜈山頂ハ尚ホ之ヨリ低キ塲合四十回アリ就中八月二十九日午後十時及三十日午前二時ニハ僅ニ二ニ達シタリ是レ本邦各測候所創立以來未タ曾テ觀測セシヿナキ低度ニシテ又容易ニ見ル能ハサル乾燥ナリトス但シ廿九日午後十時ノ乾球温度ハ六度九ニシテ濕球温度ハ氷點下一度四ニ降リ而カモ球面ノ水ハ尚ホ未タ氷結スルニ至ラサリキ

風

各風向觀測回數ハ左ノ如シ

觀測所	御嶽	黒澤	御嶽ノ差
北	一九	一七	多二
北々東	二	一五	少一三
北東	三	一五	少一二
東北東	二	五	少三
東	〇	二七	少二七
東南東	二	九	少七
南東	二	四五	少四三
南々東	六	一三	少七
南	一八	四八	少三〇
南々西	三八	九	多二九
南西	七五	一四	多六一
西南西	六九	三	多六六
西	一五二	六	多一四六
西北西	五七	四	多五三
北西	五一	一二	多三九
北々西	二〇	四	多一六
無風	〇	二八〇	少二八〇

曲線ヲ以テ之ヲ示セハ第六十六圖ノ如シ

即チ山頂ニ於ケル水蒸氣張力ノ變化ハ頗ル温度ノ變化ニ相似テ唯其最低ハ午前一時半頃ニ生シ温度最低時刻ニハ既ニ稍上昇シツヽアリ而シテ山下各所ニ於ケル最低ハ概ネ温度最低時刻ニ生スレト最高ハ午後六時或ハ午前十時又ハ午後二時ニ於テ生ス概シテ言ヘハ山下ハ日出ノ頃ヨリ俄ニ昇リテ午前十時頃ニ至リ其後ノ供給ハ時ニ其上層ニ昇騰シ去ルモノニ及ハサルノ狀アリテ夕刻ニ近ツクニ從ヒ昇騰氣流鎮靜シ終ニ日沒頃ニ至リ下層ニ於テ大ニ水蒸氣ノ堆積ヲ來タスモノヽ如シ是レ蓋シ夏期ノ現象ニシテ冬期ニ於テハ山下モ亦概ネ温度ニ伴フテ昇降スヘシ而シテ山頂ノ水蒸氣ハ殆ト全ク漸次遙ニ山下ヨリ昇リ來リ復タ降リ去ルカ故ニ山下ニ於テ晝間時ニ供給ノ不足アルモ山頂ニ於テハ全ク之ヲ感セサルモノヽ如ク又最低時刻ハ山下ニ於テハ温度ト符合シ山頂ニ於テハ然ラサルモ温度ノ最高最低時刻ニ於ケル水蒸氣張力ノ差ハ兩所殆ト相同シ

山頂ノ水蒸氣ハ之ヲ岐阜ニ比スレハ僅ニ百分ノ三十四又黒澤ニ比スレハ百分ノ四十六ニ相當ス即チ其遞減ノ速度ハ氣壓ニ比シテ甚タ急ナルヲ見ルヘシ今試ニハンノ算式 $e=E\,10^{-\frac{h}{6517}}$ ヲ用ヒ岐阜ノ觀測ニ據リテ御嶽山頂ノ水蒸氣張力ヲ算出スレハ六粍八八ヲ得ヘク又黒澤ノ觀測ニ據レハ六粍八〇ヲ得ヘシ即チ山頂ノ實測六粍七八ニ對シテ前者ハ〇、一〇後者ハ僅ニ〇、〇二ノ差アルノミ

又山頂ニ於ケル最高極度ハ九月十二日正午ニ於テ一〇粍二ニ達シ最低極度ハ八月廿九日午後十時及三十日午前二時ニ於テ僅ニ〇粍一ニ降レリ而シテ黒澤ノ最高ハ八月十三日午後二時ニ於テ一九粍九ニ昇リ最低ハ同月廿七日午前六時ニ於テ八粍五ニ降レリ

空氣ノ濕度（百分率）

一日中ノ變化ハ左ノ如シ

地中ノ溫度

山頂ニ於テハ砂地(黑澤ハ黑土)ノ上ニ斜ニ一個ノ寒暖計ヲ横タヘ其球ノミヲ地中ニ埋メ毎日六回(黑澤ハ十二回)地皮ノ温度ヲ觀測セリ其結果ニ據レハ山頂ニ於テハ夜間ハ空氣ノ温度ヨリ低ク晝間ハ高ク最低ハ午前六時ニ於テ氣温ヨリ低キヿ一度四二又最高ハ正午ニ於テ氣温ヨリ高キヿ六度二〇ナリ而シテ黑澤ハ晝夜共ニ氣温ヨリ高ク其差ノ最小ナルハ午前四時ニ於ケル〇度四六ニシテ最大ハ正午ニ於ケル一一度六五トス蓋シ兩所地質ヲ異ニスレハ隨テ同一ノ結果ヲ得ヘカラスト雖東京ノ如キモ八月ニ於ケル地皮ノ温度ハ晝夜共ニ空氣ノ温度ヨリ高カリキ

更ニ最高日温ト對照スレハ平均ニ於テハ兩所共ニ日温ノ方高シト雖毎日ノ度ニ就テ之ヲ見レハ兩所共ニ地皮温度ノ方高キヿ數度ニ及フヿ數回アリ爲メニ黑澤ニ於テハ寒暖計ノ度盛足ラスシテ屢々欠測スルノ止ムヲ得サルニ至レリ

又山頂ニ於テハ地中ニ竹筒ヲ埋メ其中ニ寒暖計ヲ下ク其球ヲ地面下三粉ノ深サニ達セシメ三十五日間毎日二回午前十時及ヒ午後十時ニ於テ之ヲ觀測セリ其結果ニ據レハ此深サニ於ケル二回觀測ノ平均温度ハ空氣ノ(十二回ノ)平均温度ヨリ低キヿ〇度一八ニシテ午前十時ハ午後十時ヨリ低キヿ一度一八ナリ而シテ東京ニ於テハ鐵管ヲ用ヒ地質モ亦異ナリト雖其八月中地面下三粉ノ平均温度ハ氣温ヨリ高キヿ〇度七五ニシテ午前十時ハ午後十時ヨリ低キヿ〇度二二ナリキ

水蒸氣張力 (粍)

一日中ノ變化ハ左ノ如シ

觀測所	御嶽	黑澤	差 御嶽ノ方低
午前二時	五、八一	一三、六六	七、八五
午前四時	六、〇四	一三、一七	七、一三
午前六時	六、二二	一三、一一	六、八九
午前八時	六、六六	一四、三七	七、七一
午前十時	七、四三	一五、一九	七、七六
正午	八、〇二	一五、一三	七、一一
午後二時	八、一七	一五、二九	七、一二
午後四時	七、八二	一五、四九	七、六七
午後六時	六、八六	一五、八〇	八、九四
午後八時	六、二六	一五、二三	八、九七
午後十時	六、一九	一四、七一	八、五二
夜半	五、九三	一四、一一	八、一八
平均	六、七八	一四、六〇	七、八二

東鳳翩山頂(七三四米)ト山口	○、六六	廿三年八月
	○、六二	仝　九月
	○、四五	仝　十月
輕井澤(九四四米)ト長野(四二〇米)	○、六九	仝　八月
仝　東京	○、四七	仝

之ヲ要スルニ各所地勢ヲ異ニシ時季ヲ異ニシ天氣モ亦異ナル等ノ事情アリテ到底同一ノ結果ヲ望ムヘカラス

日温

地上一粉半ノ所ニ黑球最高寒暖計ヲ横ニ掛ケ毎日太陽ニ曝露シテ其最高示度ヲ觀測セシニ山頂ニ於ケル四十三日間ノ平均ハ一九度六〇ニシテ空氣ノ最高温度ヨリ高キヿ四度八七ナリ而シテ黑澤ノ平均ハ三九度九八ニシテ空氣ノ最高温度ヨリ高キヿ一二度〇一ナリ即チ山頂ニ於ケル日温ト氣温トノ差ハ黑澤ノ半ニ及ハス又山頂ノ日温最高極度ハ八月三十一日ニ於ケル二九度九ニシテ黑澤ハ同月十四日ニ於ケル四七度五トス但シ黑澤ノ寒暖計ハ生草ノ上ニ裝置セシモ山頂ニハ生草ナク又山頂ハ風勢強ク且ツ雲霧ノ襲來頻繁ニシテ充分ニ日温ノ最高度ヲ觀測シ能ハサリシ場合多シトス

地温

板黑上ニ最低寒暖計ヲ置キ夜中之ヲ屋外ニ曝露シテ其冷却セル極度ヲ觀測セシニ山頂ニ於テ八月一日ヨリ九月六日ニ至ル平均ハ二度九一ニシテ空氣ノ最低温度ヨリ低キヿ二度二二ナリ而シテ黑澤ニ於ケル四十三日間ノ平均ハ一二度七二ニシテ空氣ノ最低温度ヨリ低キヿ二度一五ナリ即チ地温ト氣温トノ差ハ上下殆ト相同シ又山頂ノ最低極度ハ八月廿六日ニ於ケル氷點下四度八ニシテ黑澤ハ同月廿七日ニ於ケル五度三ナリ

山頂ニ後ルヽヿ二日即チ九月一日ニ至リテ始メテ平均以上ニ昇リタリ

夫レ斯ノ如ク上下間温度ノ差ハ時ニ依リテ甚タ不同ナリト雖今茲ニ四十三日間ノ平均ニ據リ高所ニ昇ルニ從ヒテ温度ノ遞減スル割合ヲ求ムレハ百米ニ付キ左ノ如シ

	岐阜	金澤	長野	沼津	平均	黒澤
御嶽	○、五七	○、五三	○、五五	○、五五	○、五五	○、五二

	岐阜	金澤	長野	沼津	平均
黒澤	○、七二	○、五五	○、六八	○、六四	○、六四

本表ニ據レハ黒澤以下ノ遞減率ハ其以上ヨリモ小ニシテ且ツ各所不同ノ結果ヲ呈セリ蓋シ高層ハ下層ヨリモ遞減率ノ小ナルハ輕氣球ノ實驗モ亦之ヲ證ス而シテ各所不同ナルハ地勢ノ然ラシムル所ナルヘシ或ハ特ニ黒澤ニ於ケル温度ノ低キニ過クルナキカヲ疑フ者アラン然レモ御嶽ノ北東麓ニシテ黒澤ヨリ高キヿ凡三百五十米ナル西野ニ於ケル二十日間午前六時及ヒ午後二時觀測ニ依テ得タル結果ハ恰モ黒澤ニ於ケル同日同時ノ結果ト符合シ又御嶽ノ南東麓ニシテ黒澤ヨリ高キヿ凡百二十米ナル王瀧ニ於ケル十六日間午前六時及午後二時觀測ニ依リテ得タル結果ハ黒澤ニ於ケル同日同時ノ結果ニ比シテ僅ニ○、○一丈ケ大ナリキ

又飛驒國高山(海面上凡五七二米)及ヒ美濃國中津川(海面上凡三三七米)ニ於ケル八月中午前十時ノ觀測ニ據レハ兩所共ニ四測候所ノ同時ニ於ケル觀測ヨリモ大ナル遞減率ヲ呈シ高山ハ中津川ヨリモ一層大ナリキ是レ蓋シ單ニ一日一回ノ觀測ニシテ且地勢ノ異ナルニ依リ温度昇降ノ摸樣各所同シカラサルハ第六十五圖ニ於テ既ニ明ナリ尚ホ茲ニ晝夜數週間ニ亘ル山頂幷ニ其最近低所ノ觀測ニ據リテ得タル既往ノ結果ヲ掲ケテ參考ニ供スヘシ

富士山頂ト東京沼津濱松	○、四九	廿二年八月
仝　山中村(九九○米)	○、四七	仝
山中村ト東京沼津濱松	○、五三	仝
御在所嶽頂(一二一六米)ト四日市	○、六二	廿一年九月

ハ僅ニ十日間許ノ結果ニ係リ且寒暖計ニ精粗アリ又實際同時ニ且精密ニ比較スルヿ能ハサル塲合アリシヲ以テ充分精確ナリトハ云ヒ難キモ別ニ絕頂神社前ノ平地ニ於テ前同樣ノ方法ニテ試驗セシモノモ亦概ヲ相似タル結果ヲ呈セリ蓋シ其度ノ低キハ寒暖計自身ノ放熱或ハ濕氣ノ作用等ニ皈スヘキ歟要スルニ充分精確ナル試驗ニアラスト雖聊カ記シテ參考ニ供スルノミ

山頂ニ於ケル一日中最高温度ノ平均ハ一四度七三、最低ノ平均ハ五度一三ニシテ其較差ハ九度六〇ナリ又黒澤ニ於ケル最高ノ平均ハ二七度九七、最低ノ平均ハ一四度八七ニシテ其較差ハ一三度一〇ナリ即チ山頂ノ最高ハ黒澤ノ最低ニ及ハス又山頂ノ較差ハ黒澤ノ四分ノ三ニ及ハス蓋シ山頂ハ殆ト雲霧ノ襲來セサル日ナク殊ニ濃霧四塞ノ塲合ニハ連日晝夜温度ノ差甚タ尠シ依テ今特ニ八月二日三日四日十日十一日十六日十七日十八日九月八日九日十日十一日合計十二日ヲ除キ殘三十一日間ノ平均ヲ算出スレハ最高ハ一六度四四ニシテ最低ハ五度〇一ナリ

又山頂ニ於ケル最高極度ハ九月六日ニ於ケル二二度〇、最低極度ハ八月十九日ニ於ケル〇度八ニシテ其翌廿日午前四時ノ濕球寒暖計ハ氷點下一度八ヲ示セリ而シテ黒澤ノ最高極度ハ八月十四日ニ於ケル三二度二ニシテ最低極度ハ同月三十日ニ於ケル八度九ナリトス

一日中山頂ト黒澤ト温度ノ差最大ナルハ午後四時ニ於ケル一四度六五ニシテ最少ハ午前六時ニ於ケル八度九一トス第六十五圖中山頂黒澤ノ間ニ畵セル斷線ハ則チ兩所温度ノ差ヲ示スモノニシテ此曲線ハ午後四時ニ於テ奇形ヲ呈スレモ概シテ上下平均ノ曲線ヨリモ第六十四圖ノ最下ニ示セル曲線ニ對シテ一層親密ナル關係ヲ有スルモノナルカ如キ摸樣ヲ示セリ

更ニ毎日ノ平均ニ就テ上下ノ差ヲ見ルニ第六十三圖ニ示スカ如ク最大ハ八月十一日ニ於ケル一三度九三ニシテ最小ハ同月三十日ニ於ケル七度二九ナリ又總テノ觀測ニ就テ之ヲ見レハ九月十一日午後二時ニハ一九度六ニ達シ八月三十日午前六時ニハ僅ニ二度六ニ過キサリキ

又黒澤ニ於テ一日ノ平均温度カ四十三日間ノ平均以上ニアル時ニ於テ山頂ハ平均以下ニアリシ塲合七日アリ而シテ之ニ反對ノ塲合ハ二日アリ即チ八月三十日及ヒ三十一日ノ兩日ニシテ第六十三圖ニ示スカ如ク其前連日上下共ニ甚タ寒冷ナリシカ山頂ハ三十日ニ至リテ俄ニ前日ヨリ高キコト三度七ニ及ヒ黒澤ハ

觀測所	午前二時	午前四時	午前六時	午前八時	午前十時	正午	午後二時	午後四時	午後六時	午後八時	午後十時	夜半	平均
御嶽	六、九三	六、七二	七、〇七	八、九三	一一、五二	一二、六〇	一二、三八	一〇、七二	八、四七	七、四一	七、四三	七、一九	八、九五
黒澤	一六、六〇	一五、九六	一五、九八	一九、五二	二三、九二	二六、二〇	二六、三五	二五、三七	二二、〇〇	一九、一三	一八、〇三	一七、二三	二〇、五二
御嶽ノ方低差	九、六七	九、二四	八、九一	一〇、五九	一二、四〇	一三、六〇	一三、九七	一四、六五	一三、五三	一一、七二	一〇、六〇	一〇、〇四	一一、五七

曲線ヲ以テ之ヲ畫ケハ第六十五圖ノ如シ

即チ山頂ニ於ケル晝間ノ昇降ハ大陽ニ伴ヒ整然トシテ亂レス午後七時過ニ至リテ殆ト靜止シ其後僅ニ遞降シテ翌朝ニ至リ最低最高時刻ハ雨ナカラ山下ヨリモ稍早ク其彎曲モ亦一様ニ圓滑ナリ而シテ曲線ノ振幅ハ殆ト黒澤ノ半ニシテ若シ特ニ山頂ノ尺度ヲ倍シテ畫ケハ恰モ黒澤ノ曲線ニ彷彿タルヘシ蓋シ山頂ハ高ク中空ニ聳ヘ空氣流通自在ニシテ殊ニ夜間ハ風勢強烈ナルカ故ニ其地ハ巖石ヲ以テ成ルニモ拘ハラス地上四尺ノ所ニ於ケル空氣ノ温度ハ其地面ノ冷熱ニ依リテ感動サルヽ尠キカ如シ之ニ反シテ黒澤ハ四方山岳環立シ風力頗ル弱ク殊ニ夜間ハ全ク無風ノ有様ナルカ故ニ地上若干ノ高サマテ空氣ノ温度ハ殆ト地面ノ冷熱ニ依リテ支配サルヽ儘ナレハ隨テ一日中温度較差頗ル大ナルヲ見ルナリ

然リト雖御嶽ノ寒暖計ヲ設置セル處ハ劔ケ峯ノ東側ニシテ其絶頂ヨリ低キヿ十八米トス敢テ良位置ト云フ可カラス又寒暖計室ハ方凡三尺ニシテ北面シ屋根ハ「ヅック」ヲ用ヒ凡五寸ヲ隔テヽ二重張リトナシ東南西ノ三面ハ同布ノ一重張リニシテ別ニ同布ヲ以テ日覆ヲ造リ大陽ニ面スル方ニ立テカケタリ是亦完全ナルモノト云フ可カラス故ニ今聊カ試驗セル所ノ結果ヲ茲ニ附記スヘシ

九月初旬寒暖計室外地上凡二尺ノ處ニ一條ノ麻糸ヲ張リ之ニ一個ノ寒暖計（水温試驗用）ヲ釣リ下ケ晝夜日光雨露ニ曝シテ毎觀測時ニ之ヲ熟視セリ其結果ニ據レハ午前六時八時及十時ニ於テハ日光ノ直射ヲ受クルヿ最モ多カリシヲ以テ觀測ノ際野簿ニテ寒暖計ノ球ヲ日蔭トナシタルニモ拘ハラス稍高度ヲ示シタルモ其他ノ時刻ニ於テハ殆ト全ク室（寒暖計ノ）内ニ裝置セル乾球寒暖計ノ度ヨリモ低カリキ而シテ其地上ノ高サハ室内ニ在ルモノヽ半ニ過キサルニ午後二時四時六時ノ平均差（低〇、八）ハ夜間（低〇、四）ニ倍セリ其度數

及ヒ御嶽黒澤兩所ニ於ケル一日中氣壓ノ變化セル摸樣ヲ畫ケハ第六十四圖ノ如シ即チ山下五ケ所ノ曲線ハ其形狀概ネ相似タリト雖山頂ニ於テハ殊ニ其絕對最低及ヒ最高時刻ヲ山下ト異ニセリ是レ蓋シ山頂ハ大氣ノ十分ノ三ヲ脚下ニ遺スルカ故ニ山下ト同一ノ原因ニ屬スル浮沈ノ外ニ海面ト山頂トノ間ニ存在セル空氣ノ脹縮ニ因リ山頂以上ニ空氣ノ增減ヲ來タスニ由ル今山頂ニ於ケル一日中ノ氣壓變化ヲ二別シ其山下ト同一ノ原因ニ屬スル分ハ黒澤ニ於ケル變化ノ百分ノ七十七ニ等シト假定シ之ヲ山頂ノ氣壓ニ加減スレハ第六十四圖ノ最下ニ畫セルカ如キ曲線ヲ得ヘシ是レ即チ單ニ溫度ノ昇降ニ因リ兩所間空氣脹縮ノ摸樣ヲ現ハスモノト見テ可ナラン試ニ之ヲ兩所間ノ平均溫度即チ第六十五圖ノ最下ニ畫セル曲線ト對照スレハ各零線即チ平均線以上ノ時間ハ前者ノ方長キヿ凡一時間餘ニシテ其零線ヲ通過セル時刻ハ前者ノ後ルヽヿ上昇ノ際ニ於テ凡一時三十分又下降ノ際ニ於テ二時三十分餘ナリトス蓋シ黒澤ハ海面ヲ抜ク八百三十三米故ニ其一日中氣壓ノ變化ハ亦其以下ニ於ケル空氣脹縮ノ影響ナキヲ得ス然ルニ第六十四圖ハ毫モ其形跡ヲ示サス是レ恐クハ其位置內地ニ在リ隨テ溫度昇降ノ差大ナルニ因ルナルヘシ

數日間ノ平均ニ據レハ一日中溫度ノ昇降ニ伴フテ山頂氣壓ノ變化スル有樣ハ前述セル如シト雖上下兩所溫度ノ平均ヲ以テ直ニ其中間ノ平均溫度トナスノ不充分ナル彼ノ所謂溫冷反對ノ氣流上下ニ流行セル或ハ中間ニ雲アル等ノ場合ニ於テハ殊ニ錯雜ニシテ容易ニ推度シ得ヘカラサルモノアリ即チ第六十三圖ニ示ス如ク每日ノ平均ニ據レハ上下氣壓ノ差ハ必シモ其平均溫度ノ高低ニ伴ハサルモノアリ

山頂ニ於ケル四十三日間ノ最低氣壓ハ八月十七日午前二時三十分頃ニ於ケル五二三粍一ニシテ黒澤ハ同日午前四時ニ於ケル六八三粍五ナリトス又山頂ノ最高ハ九月三日午前十時及午後八時ニ於ケル五三六粍四ニシテ黒澤ハ同日午前六時ニ於ケル六九四粍七ナリトス即チ其較差ハ山頂ニ於テ一三粍三ニシテ黒澤ハ一一粍二ナリ

空氣ノ溫度（攝氏）

面氷結シテ其厚サ曲尺二分ニ及ヒタルヿアリ是レ蓋シ此季節ニ於テハ異例ナリト云フ此時ハ山下各所亦温度低ク黒澤ニ於テハ廿七日ノ最低八度四ニ降リタリ夫レ斯ノ如ク山頂ニ於テハ三伏ノ候尚ホ結氷ヲ見ルヿアリ谷間各所殘雪多キ亦推知スヘシ然レヒ連日晴天ナルトキハ本年九月初半旬ニ於ケルカ如ク晝間ノ最高温度ハ概二十度以上ニ昇リ夜間ト雖五度ヲ降ラス若シ身ヲ日光ニ曝露スレハ空氣ノ稀薄ナルト水蒸氣ノ少量ナル等ニ因リ其作用甚烈ニシテ皮膚ヲ燒キ殆ト堪フ可カラス概スルニ登山者若シ快晴ノ日ニ於テ適宜ニ身ヲ裝フテ正午前後ニ山頂ニ到ラハ風力モ弱クシテ愉快ニ各所ヲ巡覽シ得ヘシ唯遠望ニ適スル好時期ハ朝夕ニアリ晝間ハ概ネ雲氣四方ニ起リテ視線ヲ遮リ夕刻ニ至リテ温度ノ低下スルト共ニ靜定ス若シ又天候不穩ノ兆アリテ中央氣象臺ハ既ニ警報ヲ發シタルモ山下ニ在リテ未タ何等ノ異狀ヲ呈セサルニ欺カレ慢ニ發山スル者アラハ忽チ雲霧ニ襲ハレ風力強猛冷雨身ニ浸ミ進退谷リテ殆ト凍死セントスルニ至ル斯ノ塲合ニ於テ山頂ノ空氣ノ温度ハ概ネ六度ヲ降ラサルモ風雨ノタメニ体温ヲ奪ヒ去ラルヽハ靜穩乾燥ナル時ノ比ニアラサルナリ

御嶽ノ天氣概略斯ノ如シ更ニ一歩ヲ進メテ上下ノ氣象ヲ對照スレハ

空氣ノ壓力（粍）

御嶽及黒澤ニ於ケル一日中ノ氣壓ノ變化ハ左ノ如シ（緯度ノ更正ヲ施サス）

觀測所	御嶽	黒澤	差（御嶽ノ低方）
午前二時	五三一、七六	六九〇、八四	一五九、〇八
午前四時	五三一、六四	六九〇、八九	一五九、二五
午前六時	五三一、八四	六九一、一九	一五九、三五
午前八時	五三二、一〇	六九一、一二	一五九、〇二
午前十時	五三二、四〇	六九〇、七七	一五八、三七
正午	五三二、三三	六九〇、一三	一五七、七二
午後二時	五三二、三三	六八九、六九	一五七、三六
午後四時	五三二、一七	六八九、六一	一五七、四四
午後六時	五三二、一一	六八九、八一	一五七、七〇
午後八時	五三二、四三	六九〇、七一	一五八、二六
午後十時	五三二、三三	六九一、〇三	一五八、七〇
夜半	五三二、〇二	六九一、〇三	一五九、〇一
平均	五三二、一三	六九〇、五七	一五八、四四

本表ニ據レハ御嶽ノ氣壓ハ黒澤ヨリ低キヿ平均一五八粍四四ニシテ黒澤ヲ百トスレハ御嶽ハ七十七ニ當ル其差ノ最大ナル時刻ハ午前六時ニシテ最小ハ午後二時トス今曲線ヲ以テ岐阜金澤長野沼津ノ四測候所

斯ノ如キヿ間々數日ニ渉レリ

又黒澤ノ地タル北ハ高森山、東ハ中澤山、道ノ澤峠、南ハ臺ヶ峰、西ハ御嶽等ノ山岳丘陵屏障環立セル溪間ニ在リテ西野、王瀧兩川ハ合シテ一ト成リ西南山麓ヲ沿フテ奔流シ木曾川ニ注入ス而シテ觀測所ハ北側高臺ニ位置ヲ占ム此地中山道福島驛ヲ距ル三里ニ過キスト雖皆山道ニシテ殊ニ黒澤ニ隣接セル字合戸ノ峻坂ハ觀測所ヨリ高キヿ直立百十間運搬悉ク人背ニ依レリ

這回觀測ノ爲メ携帶シタル器械ハ左ノ如シ

一山用晴雨計　二個
一自記空盒晴雨計　一個
一最高寒暖計　二個
一日温最高寒暖計　二個
一自記寒暖計　二個
一雨量計　二個
一風力計用電氣盤　二個
一空盒晴雨計　二個
一乾濕寒暖計　二個
一最低寒暖計　二個
一地温最低寒暖計　二個
一普通寒暖計　四個
一風力計　二個

右ノ外測量用小形時辰儀、セキスタント、水準器、羅針盤等諸種ノ雜器ヲ携帶セリ又岐阜長野兩測候所ヨリモ數種ノ寒暖計等ヲ携帶シ來リタルヲ以テ暴風ノ際多少毀損セシモノアリシニモ拘ハラス能ク四十三日間ノ觀測ヲ全フスルヿヲ得タリ

御嶽氣候概況

茲ニ御嶽山頂ノ氣候八月一日ヨリ九月十二日ニ至ルヲ略記スレハ氣壓ハ平均五百三十二粍ニシテ之ヲ海面ニ於ケル氣壓ニ比スレハ實ニ百分ノ七十ニ過キス故ニ山頂ニ在リテ少シク勞働スレハ忽チ呼吸切迫シ厭倦ヲ來タシ人皆山下ニ在ルカ如ク活潑ナラサルノ狀アリ加フルニ空氣ノ温度ハ一年中ノ最高季節ニ於テスラ尚ホ平均八度九攝氏ニシテ恰モ東京ニ於ケル三月末及ヒ十一月中旬ニ等シ殊ニ本年八月下旬ニハ屋外ニアル槽内ノ水

頂上ノ右方ニ一棟ノ長家アリ之ヲ頂上小屋ト稱ス此小屋ナクンハ四十三日間ノ滯在ハ覺束ナカリキ中央ニ白ク斜方形ニ見ユルハ天幕ニシテ其上ニ鳥居アリ絕頂ニ神社アリ

一頂上御嶽神社境內ノ景

神祠ノ右後ニ風力計アリ左後ニ風見アリ左前ニ神官ノ扣所アリ右方岩石ノ間ニ橫タハル一個ノ屋根ハ八月十六日夜颶風ノ爲メニ顚倒シタル舊神社ナリ

一地獄谷噴烟ノ景

二個噴孔相距ル十間其中間亦多少ノ噴烟アリ左孔ハ右孔ヨリ大ナリト雖其噴勢ハ右孔ヲ强シトス或ハ曰ク二孔噴勢交互ニ消長アリト

觀測所及器械

御嶽山麓ニ着スルノ翌日（七月二十七日）先ツ觀測所ノ位置ヲ撰定セントシ山頂ニ登レリ此日各所ノ小屋概ネ皆開ケ多少登山スル者アリ頂上ニハ巉巖ニ據リ東面シテ神祠ヲ構ヘ其前庭十五六坪ノ間ニ土ヲ盛リ地ヲ均ラシ石造ノ垣ヲ圍ラセリ石階ヲ踏ミ下ルヿ九十七段ニシテ左傍ニ小屋アリ長七間幅三間半巉巖ヲ背ニシテ構造セリ屋內未タ人ナク一團ノ殘雪尙ホ存セルヲ見ル小屋ノ南側ニ少許ノ地面アリ寒暖計室等ヲ設クルニ用フヘシ又眼ヲ放テ山麓ヲ下瞰スルニ北東開田村字西野ハ土地廣クシテ稍平坦ナレ𪜈山麓觀測所トシテハ地位高キニ過キ且山頂ト往來通信スルニ便ナラス南東王瀧村ハ地狹ク且中間ニ山アリテ山頂ト相視ル能ハス唯東方三岳村字黑澤ハ其地廣シト云フ可カラサルモ地位最モ低ク且山頂ト相望ムヲ得ルノミナラス運搬通信等ノ便アリ即チ山麓觀測所ニ相當ノ地ハ之ヲ措テ他ニ求ム可カラス是ニ於テ山頂ハ頂上小屋ノ一隅四疊半ヲ借リ又山麓ハ三岳尋常小學校ノ一室ヲ借ルヿニ決セリ

蓋シ山頂觀測所ハ岳ノ最高峯ニアリテ天朗日麗ナル日ハ四望開濶意氣壯快ナリト雖一朝風雨ノ襲フ所トナレハ濃霧四塞咫尺ヲ辨セス雨水床下ニ浸潤シ寢牀衣衾悉ク沾濕シ晝間尙ホ燈ヲ點シ爐ヲ擁スルヲ常トセリ加之登山人往々麕至シ寒氣ヲ凌カンカ爲メ多量ノ薪ヲ焚キ燻烟室內ニ充滿シ殆ト兩眼ヲ開ク能ハス

頂ニ至レハ燒石塊磊氣候寒冷絶テ樹木ナク唯纔ニ數種ノ花卉岩石ノ間ニ點在スルノミ然レ𪜈能ク短キ夏ノ間ニ生育シテ美麗ナル花ヲ開キ一時ノ芳妍ヲ鬪スニ至リテハ大ニ登山者ノ心目ヲ慰ムルニ足レリ

御頂ノ地勢概略前述セル所ノ如シ而シテ這回山頂及ヒ山麓ニ於テ觀測ノ餘暇近傍各所ノ景ヲ撮影セルモノ凡テ二十餘種今其七種ヲ摸寫シ且其概略ヲ說明スヘシ

一合戶峠下ヨリ西ノ方黑澤及ヒ御嶽ヲ望ム

右方ノ高地ニ柵ヲ繞ラセル一棟ノ家屋ハ三岳尋常小學校ニシテ今回觀測所ヲ設置セシ處ナリ中央遙ニ見ユル高山ハ御嶽ニシテ其最高所ニ觀測所アリ方九尺許ノ天幕ハ肉眼ニテ明カニ黑澤ヨリ見ルヲ得

一西野ノ原ヨリ南西ノ方御嶽ヲ望ム

是レ御嶽ノ卓越聳立セル部分ノ全景ニシテ北東ヨリ斜ニ見タルモノナリ、西野ノ原ハ海面ヲ拔クヿ既ニ一千二百米トス實ニ本邦ニ於テ農村ノ存在セル最高原ナリト云フヘシ、嶽ノ右端ニ高ク聳ユルハ繼母嶽ニシテ實ハ左端ノ尖リタル處即チ頂上ヨリ低キヿ百間、中央ノ二峯左ハ阿留摩耶山右ハ摩利支天山、其中間ニ白ク見ユルハ三ノ池南壁ノ殘雪ナリ其他各所殘雪ノ多ク存在セルヲ見ルヘシ是レ八月八日ノ撮影スル所ナリ

一繼母嶽ヨリ南ノ方御嶽頂上ヲ望ム

前面ハ四ノ池南壁ニシテ右方ノ最高所ハ摩利支天山、其前ニ五ノ池アリ中央ニ殘雪二ヶ所相接シテ存在セルハ三ノ池南西絶壁ノ上部ニシテ又其上ニ斜方形ノ殘雪アル處ハ二ノ池ノ西壁ナリ此雪ノ深サハ八月七日ニ於テ一丈五尺ナリキ更ニ其上方ヲ一ノ池トス右方ハ三十六童子ニシテ左方ニ高ク尖リタルハ劒ヶ峯ナリ是レ八月三十日ノ撮影ニ係ル

一劒ヶ峯北東側ヨリ北ノ方繼母嶽ヲ望ム

此景ハ前景ト併セテ嶽頂全部ノ表裏ヲ示スモノナリ前面ニ近ク二ノ池アリ其左方ノ殘雪ハ前景ニ於テ斜方形ニ見ヘタルモノト同物ナリ左ニ高キハ摩利支天山、中央及右ニ高ク連亙セルハ繼母嶽ニシテ遙ニ其上方ニ聳ユルハ乘鞍嶽、更ニ遠ク右方ニ見ユルハ鎗ヶ嶽ナリ

一劒ヶ峯南東面ノ景

富士山ハ南六十三度二十二分東、赤石山ハ南五十二度四十一分東、惠那山ハ南十二度三十一分東、白山ハ北六十五度五十分西ニ方ル

御嶽ハ一個ノ休火山ニシテ其噴火孔ノ遺跡トシテ五個ノ池アリ概ネ南北ニ列ス其最南ナルヲ一ノ池ト稱ス池底平坦ニシテ僅ニ殘雪ノ融解シテ流ルヽニ過キス周回凡八丁其外壁中南東ノ最高所（池底ヨリ高キコト凡四十間）ヲ劔ケ峯ト稱ス是レ本嶽ノ頂上ニシテ這回觀測所ヲ設置シタル所トナス一ノ池ノ北東ニ隣接シテ二ノ池（一ノ池ヨリ低キコト凡四十間）アリ其西半最モ窪キ處ニ雪水ヲ湛ヘ周回五丁清透鏡ノ如シ二ノ池ヨリ北方大河原ヲ過キ嶮岨ナル絶壁アリ其東部ヲ阿留摩耶山（頂上ヨリ低キコト百間餘）ト稱シ西部ヲ摩利支天山（全上五十四間）ト稱ス此ヲ越ユレハ三ノ池（全上凡百七十七間）四ノ池（全上凡二百間）五ノ池（全上凡百四十四間）アリテ鼎足ノ形ヲナス三ノ池ハ周回十丁頗ル深ク清水湛々掬ス可シ四ノ池ハ其底埋リ唯流水ノ潺湲タルヲ見ルノミ其西ニ五ノ池アリ最モ小ニシテ纔ニ水ヲ瀦スルニ過キス北ハ繼母嶽（全上凡百間）ニシテ之ヲ御嶽ノ北端トス又一ノ池ノ西壁ヲ三十六童子（全上凡十間餘）ト稱シ之ニ對シテ西方ニ屹立セルヲ繼子嶽ト稱ス此嶽ハ繼母嶽ト共ニ信飛兩國ノ境界ヲナス更ニ頂上ヨリ南東王瀧村ニ下ル半腹ニ一小瘤アリ三笠山ト稱ス此山ニ到ルノ途ニ一段階アリ（全上凡七十二間）其南西端ヲ奥ノ院（全上凡七十七間）ト稱シ地獄谷ノ南壁タリ頂上ノ南西ハ斷崖絶壁其深サ幾仭ナルヲ知ラス是レ所謂地獄谷ニシテ思フニ噴火ノ際崩壊セシ處ナルヘシ崖頭ニ立テ谷底ヲ下瞰スレハ覺ヘス心悸足戰慄然トシテ肌ニ粟ヲ生ス谷間遙ニ蒸氣ノ噴出スルヲ見ル降テ其處（頂上ヨリ低キコト三百六十間）ニ到レハ二個ノ噴氣孔アリ相距ル十間其大ナルモノ口徑凡六寸小ナルモノ口徑凡三寸共ニ噴勢頗ル猛烈ニシテ轟然殷々殆ト耳ヲ劈カントス且ツ硫氣紛々時々遙ニ頂上ニ達ス概スルニ嶽頂ハ幾多ノ噴火孔アリ且ツ噴裂崩壊セル殘跡各所ニ存在シ巉巖崔嵬實ニ荒凉タル有樣ヲ呈セリ

山中温泉三ケ所アリ其一ハ頂上ヨリ北西飛驒ヘ降ルコト二里谿間ニ湧出ス前記セル濁川温泉是レナリ其二ハ地獄谷噴氣孔ノ傍ニ湧出ス其三ハ山麓王瀧村ノ地内ニアリ亦濁川温泉ト稱ス

御嶽ノ地質ハ悉ク輝石安山岩ニシテ其主成分ハ輝石長石及ヒ磁石鉄トス是ヲ以テ磁針ハ其磁石鉄ノ作用ニ感シテ一定ノ方向ヲ指示セス故ニ山頂ニ在リテハ常ニ北極星ヲ標目トシテ方向ヲ定メリ

御嶽ハ有名ナル木曾山林中ニアリ高山ノ常体トシテ植物整然層帶ヲナセリ其下部ハ扁柏花柏等ノ良木處々ニ鬱葱繁茂シ五合目以上ハ唐檜白檜等密生シ八合目以上ハ一面ニ偃松ノ地上ニ匍匐スルヲ見ル更ニ嶽

御嶽ノ地勢

御嶽ハ信飛兩國ノ境界ニ蜿蜒連亙セル大山脈中ニアリ信州西筑摩郡三岳村ノ西ニ屹立シ北緯三十五度五十三分東經百三十七度二十八分(參謀本部ノ地圖ニ據ル)ニ位シ大平洋及日本海ヲ距ル最近里程約二十五里許其高サ海面ヲ抜クコト三千〇六十九米(今回ノ觀測ニ據ル)トス即チ曲尺一萬〇百二十八尺ニシテ實ニ本邦屈指ノ一大高峯ナリ登路三アリ其一、三岳村字黑澤ヨリスルモノヲ本路トシ表山ト稱ス道程六里(直徑凡三里二十三丁)其二、隣村王瀧村ヨリスルモノヲ裏山ト稱ス道程五里共ニ半腹以上峻嶮ナリ其三、飛州益田郡落合村ヨリ登ル道程七里崎嶇牛腸最モ嶮惡ヲ極ム

蓋シ本邦ノ高山峻嶽ハ概ネ仙地靈境トシテ神佛ヲ祭祀ス御嶽モ亦幾多ノ神佛ヲ祀レリ就中頂上ニハ少彦名命及ヒ大己貴命ノ二神ヲ安置シ之ヲ御嶽神社ト稱シ年々夏期登拜スル者凡一萬人ニ降ラス是ヲ以テ山路意外ニ開ケ黑澤及ヒ王瀧ヨリ登ルニハ一合目コトニ小屋アリ又其間ニ中小屋ト稱スルモノ所々ニアリテ登山人ノ休憩宿泊ニ便セリ唯落合ヨリ登ル路ハ明治十九年始メテ開キタルモノニシテ途中僅ニ濁川ト稱スル粗惡ナル温泉塲アルノミ登山人ハ概ネ蒙昧無識一意神佛ヲ崇信スル者ニシテ山頂ヲ巡拜スルノ際間々濃霧ニ閉チラレ寒氣ニ襲ハレ死ニ瀕シ或ハ生命ヲ失フモノ少ナカラスト云フ

嶽頂ニ登レハ四望開豁一目數十里故ニ晴天ノ日ニ在リテハ四近ノ峯巒指顧ノ中ニアリテ風景雄偉絕佳ナリ即チ駒ケ嶽ハ最モ近ク東方ニ在リ其脉蜿蜒延ヒテ南東惠那山ニ連リ赤石山ノ山脉ハ尙其上ニ聳立シテ一帶ノ峯頭ヲ露ハシ富士山ハ殊ニ又其上ニ超出シ縹紗模糊風景最モ佳ナリ八ケ嶽、蓼科山ヲ經テ北東ニ方リ常ニ一縷ノ水烟ヲ噴クモノハ問ハスシテ淺間山ナルヲ知ル可シ乘鞍嶽、鎗ケ嶽等ハ北方ニ聳ヘ突兀タル峯巒相重疊シテ立山ニ到ル白山ハ北西ニ蟠リ其山脉亦頗ル宏大ナリ而シテ西及ヒ南ノ二方ハ絕テ一個ノ高山ナク恰モ綠波ノ層々相重ナルニ似タリ之ヲ要スルニ此等ノ壯觀ハ高山ニ登リシ人ニアラサレハ決シテ談スルヲ得ヘキモノニアラス

更ニ御嶽頂上ニ於テ測リタル諸高山ノ方位角二三ヲ擧レハ乘鞍嶽ハ北十五度二分東、鎗ケ嶽ハ北十八度二十三分東、淺間山ハ北五十七度五十四分東、蓼科山ハ北七十一度三十七分東、信州駒ケ嶽ハ南六十九度三分東、

御嶽氣象報告書

明治二十四年七月信濃國御嶽氣象調査ノ命ヲ奉シ同月下旬該地ニ赴キ八月一日ヨリ九月十二日ニ至ル四十三日間該山頂及ヒ山麓ニ於テ毎日定時十二回ノ觀測ヲ施行セリ其成蹟ハ卷末ノ表ニ詳ナリ

抑モ高山ノ頂ニ於テ氣象觀測ヲ施行セントスレハ先ツ堅固ナル家屋アリテ且ツ器械ノ裝置モ成ルヘク觀測ニ便利ナラサル可カラス然ラサレハ颶風暴雨ノ際ノ如キ特ニ研究ヲ要スル場合ニ於テ欠測セサルヲ得サルノ困難アリ是レ既ニ御在所嶽及ヒ富士山ニ於テ實驗セシ所ナリ而シテ今回御嶽ニ於テハ最初ヨリ天幕ヲ張リテ唯出來得ル丈ケノ觀測ヲ試ムル覺悟ナリシカ幸ニ山頂ニ一個ノ小屋アリテ其一隅ヲ借受クルヿヲ得タリ且ツ今回ノ出張ニ付テ淺田長野縣知事ハ西筑摩郡長ニ訓令ヲ發シ該郡長ハ之ヲ三岳村役場等ニ傳ヘ以テ臨時觀測所設置上大ニ利便ヲ與ヘラレ又觀測着手ニ際シ岐阜測候所ヨリハ所長井口龍太郎氏長野測候所ヨリハ所員西澤順作氏續デ來集シ終業マテノ間同心協力以テ大ニ幇助セラレ加フルニ本臺定夫鈴木金一郎岩井新平ノ兩人ハ器械ノ運搬觀測所ノ假設其他雜事ニ奔走勞働シ能ク其職ヲ盡シタルヲ以テ施業上百般ノ困難不便ヲ減却シタリ

岐阜金澤長野沼津ノ四測候所ニ於テハ本業施行中定時外尙ホ數回ノ觀測ヲ施行スルノ勞ヲ執ラレタルヲ以テ上下氣象對照上大ナル便益ヲ得ルニ至レリ

蓋シ氣海ノ底ニ在リテ全大氣ノ變動ヲ察セントスル今日ノ有樣ニ於テ三千米餘ノ高所ニ於ケル四旬餘ノ觀測ハ參考上多少ノ裨益ナクンハアラス茲ニ御嶽ノ氣象ヲ報告スルニ際リ調査上特ニ便益ヲ感シタル事項ノ大畧ヲ記シ以テ聊カ謝意ヲ表ス

中央氣象臺技手　正戸豹之助
仝　技手　近藤久次郎
仝　雇　河野常吉

月＼性質	水平上下兩動	水平動	不明	急劇	緩慢	不明
一月	｜	｜	一	｜	｜	一
二月	一	二	一	三	｜	一
三月	一	二	三	二	一	三
四月	二	一	四	一	二	四
五月	二	三	五	｜	五	五
六月	三	二	二	四	一	二
七月	三	｜	五	｜	三	五
八月	二	一	一	二	一	一
九月	｜	三	一	一	二	一
十月	六	一八	二一	五	一九	三
十一月	二	七	三	二	七	三
十二月	三	四	八	三	四	八
合計	二五	四三	五五	二三	四五	五五

前表ノ如ク本年ハ水平動甚タ多ク即チ總數百二十三回ノ内四十三回ハ水平動ニシテ水平上下ノ兩動相混シテ起リシモノハ二十五回而シテ微震ニシテ性質ノ分明ナラサルモノ五十五回アリ

又震動ノ速度ハ緩慢ナルモノ多ク即チ總數百二十三回ノ内四十五回ハ緩慢ニシテ急劇ノ震動ハ二十三回ナリ而シテ微震ニシテ速度ノ分明ナラサルモノ五十五回アリ

本年ノ地震中震動時間ノ最モ長キハ七月七日午後零時六分十二秒ノ地震ニシテ七分三十秒間ニ渉レリ之ニ亞クモノハ十月二十八日午前六時三十九分十一秒ノ地震ニシテ七分間又之ニ亞クモノハ四月七日午前九時四十九分四十六秒及七月二十一日午後八時十九分二十秒ノ地震ニシテ各六分間五月十九日午後零時零分十五秒ノ地震ニシテ四分四十秒間六月二十五日午前三時四十一分四十八秒ノ地震ニシテ四分三十秒間ニ渉リ其他ハ長キモ四分以下トス

又本年ノ地震中震幅ノ三十粍以上ニ達シタルモノ一回、二十粍以上ノモノ一回モナク十粍以上ノモノ二回、一粍以上ノモノ六回、一粍以下ナルモノ五十回、微震ニシテ震度ヲ觀測シ得ラレサルモノ尙六十四回アリ是ニ由テ之ヲ觀レハ本年ハ強震極メテ少ク微震甚タ多カリシ

地震ノ方向

本年ニ於ケル百二十三回ノ地震ニ就キ其方向ヲ擧クレハ左ノ如シ

方向	回數
南北	一六
南々西 北々東	三
南西 北東	八
西南西 東北東	四
東西	九
東南東 西北西	一一
南東 北西	一〇
南々東 北々西	六
方向不明	五六

前表ノ如ク地震ノ最モ多カリシ方向ハ南、北ニシテ十六回之ニ亞クモノハ東南東、西北西ニシテ十一回、南東北西ニシテ十回、其少キ方向ハ南々西、北々東ニシテ三回、西南西、東北東ニシテ四回ナリシ而シテ震動微弱ニシテ方向ノ分明ナラサルモノ五十六回アリ

地震ノ性質

地震ノ性質ハ水平動ナルモノアリ上下動ナルモノアリ而シテ又其動搖ノ急劇ナルモノアリ緩慢ナルモノアリ今本年中ニ發シタル地震ノ性質ヲ表記スレハ左ノ如シ

地震ノ强弱

本年中ニ觀測シタル百二十三回ノ地震ニ就キ震幅ノ大ナルモノヲ撮記スレハ左ノ如シ

月日	發震時	震動ノ時間	震動ノ方向	水平動 最大水平動 粍	水平動 最大速度 粍	水平動 最大加速度 粍	上下動 最大上下動 粍
十月二十八日	午前六時三十九分十一秒	七分零秒	東、西	二、四秒時間ニ付 三一、五	四一、二	二〇七、九	二、四秒時間ニ付 四、五
十二月二十四日	午前五時三十三分十四秒	三分四十秒	北西、南東	一、九秒時間ニ付 一六、二	二六、八	八八、六	〇、九秒時間ニ付 二、〇
七月二十一日	午後八時十九分二十秒	六分零秒	南西、北東	三、六秒時間ニ付 一〇、五	九、二	一六、〇	〇、三秒時間ニ付 〇、五
十月十一日	午後四時十六分二十七秒	二分三十秒	南東、北西	二、〇秒時間ニ付 二、〇	三、一	九、九	〇、二秒時間ニ付 〇、六
四月二十一日	午前十時四十九分零七秒	三零分秒	西北西、東南東	一、一秒時間ニ付 一、九	五、四	三一、〇	微
七月七日	午後零時零六分十二秒七	七分三十秒	南々西、北々東	二、九秒時間ニ付 一、四	一、五	三、三	微

前表ノ如ク本年中ニ觀測シタル最大震幅ハ十月二十八日午前六時三十九分十一秒ニ發シタル地震ニシテ東西ノ方向ニ於テ二、四秒時間ニ三十一粍五ヲ示セリ是レ實ニ明治十七年ミルン氏地震計ヲ設置セシ以來未タ曾テ見サル所ノ最大トス而シテ其震心ハ濃尾地方ニアリテ其近傍ハ土地ノ大陷落、家屋ノ倒壞等被害尠カラス(顯著地震概況參看)然レ𪜈東京ニ於テハ液体ノ溢出、振子時計ノ運轉ヲ止メタルニ過キサリシ之ニ亞クモノハ十二月二十四日午前五時三十三分十四秒ノ地震ニシテ震幅ハ北西、南東ノ方向ニ於テ一、九秒時間ニ十六粍二ヲ示セリ其震心ハ甲斐、駿河、相摸、ノ三ケ國相接スル所ニアリテ其近傍ハ土地ノ小陷落、道路ノ小龜裂、山崖ノ崩壞、巖石ノ墜落、屋壁ノ破損等アリ(顯著地震概況參看)又之ニ亞クモノハ七月二十一日午後八時十九分二十秒ノ地震ニシテ震幅ハ南西、北東ノ方向ニ於テ三、六秒時間ニ十粍五ヲ示セリ其震心ハ磐城、常陸ノ地方ニアリテ其近傍ニ於テハ强震ヲ感シタレ𪜈被害等ハナカリシ(顯著地震概況參看)而シテ十月十一日ノ地震ハ武藏ノ東部、下總ノ中央部ヲ震心トシ同地方ニ强震ヲ感シタレ𪜈被害ナク四月二十一日及七月七日ノ地震ハ陸羽地方ヨリ總房地方ニ亘リ震域稍々廣大ナルモノナレ𪜈震度ハ一般ニ微弱ナリシ

		午後												
自十時至十一時	自十一時至正午	自零時至一時	自一時至二時	自二時至三時	自三時至四時	自四時至五時	自五時至六時	自六時至七時	自七時至八時	自八時至九時	自九時至十時	自十時至十一時	自十一時至夜半	合計
|	|	|	|	|	|	|	一	|	|	|	|	|	|	一
一	|	|	|	一	|	|	|	|	|	|	|	|	|	四
|	|	|	|	|	一	一	|	|	|	|	|	一	|	六
一	一	一	|	一	|	一	|	|	|	|	|	一	|	七
一	一	二	一	一	|	一	|	|	|	|	|	|	|	一〇
一	|	一	|	|	|	|	|	|	|	|	一	|	一	七
|	一	一	一	一	|	|	一	|	|	一	|	|	|	八
|	|	一	|	|	|	|	|	|	|	|	一	|	|	四
一	一	|	|	一	|	|	|	|	|	|	|	|	|	四
一	三	一	一	三	四	一	二	二	四	三	二	一	|	四五
一	一	|	一	|	一	一	|	|	|	|	二	|	|	一二
|	一	|	一	一	|	一	|	|	一	一	二	一	一	一五
七	九	七	五	九	六	六	四	二	五	五	八	四	二	一二三

前表ニ由テ之ヲ觀レハ地震ノ最多キ時刻ハ午前六時ヨリ七時ノ間ニシテ之ニ亞クモノハ午前七時ヨリ八時、仝十一時ヨリ正午、及午後二時ヨリ三時ノ間ナリ而シテ其最モ少キ時刻ハ午前一時ヨリ二時及三時ヨリ四時ノ間ナリトス

前表ニ由テ之ヲ觀レハ各季ノ平均ハ三十一回ニシテ各季中回數ノ最モ多キハ秋季最モ少キハ夏季ナリトス

又之ヲ寒暑二候ニ區分スレハ

候	寒	暑	平均
地震回數	八三	四〇	六一

前表ニ由テ之ヲ觀レハ寒暑二候ニ於ケル平均ハ六十一回ニシテ寒候ハ暑候ヨリ多キコト四十三回ナリ

地震ノ時刻

本年ニ於ケル震數百二十三回ヲ毎時ニ區分スレハ左ノ如シ

月＼時	午前 自零至一時	自一至二時	自二至三時	自三至四時	自四至五時	自五至六時	自六至七時	自七至八時	自八至九時	自九至十時
一月	—	—	—	—	—	—	—	—	—	—
二月	—	—	—	—	—	—	二	—	—	—
三月	—	—	—	—	—	一	—	一	一	—
四月	—	—	—	—	—	—	—	—	—	一
五月	—	—	—	—	—	—	—	—	一	二
六月	—	—	—	一	—	—	一	—	—	一
七月	—	—	—	—	—	—	一	—	—	一
八月	—	—	—	—	一	—	—	—	一	—
九月	—	—	—	—	—	—	—	—	一	—
十月	一	一	一	—	—	—	四	八	—	二
十一月	一	—	二	—	—	—	一	—	—	一
十二月	—	—	一	—	一	二	一	—	—	—
合計	二	一	四	一	二	三	一〇	九	四	八

仝	仝 十一時零九分三十六秒	一分零秒	東、西	｜	微	｜	｜	｜
十二月三日	仝 二時零二分二十七秒	一分零秒	南、北	〇、九	〇、二	〇、七	四、九	｜
仝	午後一時十一分五十四秒	｜	｜	｜	微	｜	｜	｜
仝	仝 九時五十一分十五秒	｜	｜	｜	微	｜	｜	｜
仝 四日	仝 九時二十九分零四秒	一分三十秒	北西、南東	〇、八	〇、四	一、六	一二、三	｜
仝 八日	仝 四時零二分十七秒	｜	｜	｜	微	｜	｜	｜
仝 十一日	仝 八時四十四分十一秒	一分零秒	南西、北東	〇、七	〇、三	一、三	一二、一	微
仝 十五日	午前十一時廿三分四十五秒	二分五十秒	東南東、西北西	〇、八	〇、九	三、五	二七、八	微
仝 廿一日	午後二時二十分十五秒	｜	｜	｜	微	｜	｜	｜
仝 廿二日	午前四時二十三分三十八秒	｜	｜	｜	微	｜	｜	｜
仝 廿四日	仝 五時三十三分十四秒	三分四十秒	北西、南東	一、九	一六、二	二六、八	八八、六	〇、九秒時間ニ付二、〇
仝	仝 五時五十二分二十二秒	｜	｜	｜	微	｜	｜	｜
仝	午前六時二十六分十六秒	｜	｜	｜	微	｜	｜	｜
仝 廿五日	午後七時三十八分十三秒	一分零秒	北西、南東	〇、七	〇、三	一、三	一二、一	｜
仝 廿六日	仝 十時二十二分三十七秒	一分零秒	南東、北西	〇、九	〇、二	〇、七	四、九	｜
仝 廿九日	仝 十一時十三分二十秒	｜	｜	｜	微	｜	｜	｜

地震ノ多寡及季節

本年中ニ觀測シタル地震ノ數ハ合計百二十三回ナリ今其各月ノ回數ヲ擧クレハ左ノ如シ

月	一月	二月	三月	四月	五月	六月	七月	八月	九月	十月	十一月	十二月	合計
地震回數	一	四	六	七	一〇	七	八	四	四	四五	一二	一五	一二三

前表ニ由テ之ヲ觀レハ地震ノ最モ多キハ十月ニシテ其最モ少キハ一月トス

更ニ之ヲ四季ニ區分スレハ

季	春	夏	秋	冬	平均
地震回數	二三	一九	六一	二〇	三一

十月廿八日	仝十一時五十八分二十二秒	|	|	|	微	|	|	|
仝	午後零時十二分零六秒	|	|	|	微	|	|	|
仝	午後一時零三分二十五秒	|	|	|	微	|	|	|
仝	三時零三分五十七秒	|	|	|	微	|	|	|
仝	三時二十七分零秒	|	|	|	微	|	|	|
仝	三時三十三分四十七秒	|	|	|	微	|	|	|
仝	三時五十七分十一秒	|	|	|	微	|	|	|
仝	五時三十二分二十八秒	一分五十秒	南東、北西	〇、九	〇、六	二、一	一四、六	|
仝	六時二十一分三十二秒	|	|	|	微	|	|	|
仝	七時十五分三十七秒	|	|	|	微	|	|	|
仝	七時二十八分二十五秒	一分三十秒	南、北	〇、五	〇、二	一、三	一五、八	|
仝	八時二十五分十秒	一分十秒	南、北	〇、七	〇、二	〇、九	八、一	|
廿九日	午前七時零八分三十一秒	|	|	|	微	|	|	|
三十日	仝零時十五分十四秒	二分三十秒	南、北	一、二	〇、七	一、八	九、六	|
仝	仝二時二十七分四十七秒	一分三十秒	南、北	一、一	〇、四	一、一	六、五	|
仝	午後二時二十五分五十六秒	三十秒	東、西	|	微	|	|	|
仝	仝七時零九分零七秒	三十五秒	南、北	|	微	|	|	|
仝	仝十時二十五分零秒	|	|	|	微	|	|	|
十一月一日	午前六時零二分二十九秒	|	|	|	微	|	|	|
仝	午後九時二十分零六秒	一分零秒	南西、北東	〇、六	〇、三	一、六	一六、四	|
二日	仝四時五十九分二十三秒	一分十秒	南々東、北々西	〇、八	〇、二	〇、八	六、二	|
三日	仝一時零二分十八秒	|	|	|	微	|	|	|
六日	午前十時零分十四秒	一分零秒	東、西	〇、六	〇、二	一、〇	一一、〇	|
七日	仝二時十八分零五秒	三分零秒	南、北	一、八	〇、四	〇、七	二、四	|
仝	午後三時三十六分五十四秒	二分三十秒	北西、南東	〇、五	〇、三	一、九	二三、七	微
二十日	仝九時四十五分二十六秒	一分二十秒	南西、北東	〇、八	〇、二	〇、八	六、二	|
廿三日	午前零時三十分十一秒	一分三十秒	南東、北西	〇、五	一、〇	六、三	七八、九	微
仝	仝二時三十九分四十五秒	|	|	|	微	|	|	|
廿八日	午前九時四十一分零四秒	一分三十秒	東、西	一、一	〇、二	〇、六	三、三	|

仝 九日	仝十一時四十九分五十八秒	ー	ー	ー	微	ー	ー	ー
仝 十八日	仝 八時四十六分零九秒	三十秒	南、北	ー	微	ー	ー	ー
十月 四日	午後六時二十八分三十八秒	一分零秒	南西、北東	〇、六	〇、四	二、一	二一、九	微
仝 五日	仝 八時十分二十三秒	一分三十秒	西南西、東北東	〇、八	〇、五	二、〇	二五、四	微
仝 六日	午前一時零一分二十七秒	ー	ー	ー	微	ー	ー	ー
仝	午前六時四十七分三十秒	一分五十秒	南、北	一、二	〇、二	〇、五	二、七	ー
仝	午後二時十九分零二秒	四十秒	不詳	ー	微	ー	ー	ー
仝 七日	午前十一時廿三分四十七秒	一分零秒	南、北	一、二	〇、二	〇、五	二、七	ー
仝 八日	仝 九時零分三十四秒	ー	ー	ー	微	ー	ー	ー
仝 十一日	午後四時十六分二十七秒	二分三十秒	南東、北西	二、〇	二、〇	三、一	九、九	〇、二秒時間ニ付〇、六
仝 十二日	仝 二時零七分二十八秒	ー	ー	ー	微	ー	ー	ー
仝	仝 五時二十八分十七秒	ー	ー	ー	微	ー	ー	ー
仝	仝 九時三十一分四十秒	一分零秒	東南東、西北西	〇、三	〇、二	二、一	四三、九	ー
仝 十六日	午前七時零四分十五秒	ー	ー	ー	微	ー	ー	ー
仝 廿二日	仝 六時二十六分二十秒	一分二十秒	東南東、西北西	一、一	一、三	三、七	二一、三	微
仝	午後九時零分零五秒	一分零秒	北西、南東	〇、四	〇、三	二、四	三七、〇	ー
仝 廿四日	仝 八時十七分四十九秒	一分二十五秒	南、北	一、〇	〇、三	〇、九	五、九	ー
仝 廿七日	午前六時十六分十三秒	二分十秒	東南東、西北西	〇、八	〇、九	三、五	二七、八	微
仝	午後七時零九分四十五秒	一分十秒	東南東、西北西	〇、七	〇、五	二、二	二〇、一	ー
仝 廿八日	午前六時三十九分十一秒	七分零秒	東、西	二、四	三一、五	四一、二	一〇七、九	二、四秒時間ニ付四、五
仝	仝 七時零三分四十秒	ー	ー	ー	微	ー	ー	ー
仝	仝 七時零六分四十六秒	ー	ー	ー	微	ー	ー	ー
仝	仝 七時二十一分三十二秒	ー	ー	ー	微	ー	ー	ー
仝	仝 七時二十五分二十三秒	ー	ー	ー	微	ー	ー	ー
仝	仝 七時四十九分五十九秒	一分十三秒	南、北	〇、七	〇、二	〇、九	八、一	ー
仝	仝 七時五十四分四十七秒	一分三十秒	南々東、北々西	一、〇	〇、六	一、九	一一、八	ー
仝	仝 九時零九分四十二秒	ー	ー	ー	微	ー	ー	ー
仝	仝 十時三十八分十一秒	三分零秒	南々西、北々東	二、〇	〇、七	一、一	三、四	ー
仝	仝 十一時二十九分十九秒	二分零秒	南、北	一、一	〇、三	〇、九	四、九	ー

仝十四日	午後四時十三分三十九秒	二十秒	東、西	—	微	—	—	—
仝十八日	午前九時四十分五十二秒	—	—	—	微	—	—	—
仝	仝十時五十三分三十九秒	—	—	—	微	—	—	—
仝	仝十一時二十一分二十二秒	—	—	—	微	—	—	—
仝十九日	午後零時零分十五秒	四分四十秒	東南東、西北西	一、三	〇、五	一、二	五、八	微
仝廿五日	仝一時三十七分四十四秒	一分二十秒	西南西、東北東	〇、七	〇、三	一、三	一二、一	—
仝廿六日	仝零時十九分五十五秒	—	—	—	微	—	—	—
仝三十日	仝二時二十分十九秒	一分三十秒	西北西、東南東	〇、九	〇、五	一、七	一二、二	微
六月一日	午前十時十一分零秒	—	—	—	微	—	—	—
仝	午後零時三十八分四十三秒	一分二十三秒	南、北	〇、七	〇、四	一、八	一六、一	微
仝四日	仝九時二十二分十三秒	一分三十秒	西南西、東北東	〇、八	〇、三	一、二	九、二	微
仝	仝十一時十九分十五秒	五十秒	北東、南西	〇、六	〇、三	一、六	一六、四	—
仝十九日	午前六時四十一分四十九秒	一分十秒	東南東、西北西	〇、四	〇、五	三、九	六一、七	—
仝廿二日	仝九時四十三分四十二秒	—	—	—	微	—	—	—
仝廿五日	仝三時四十一分四十八秒	四分三十秒	北々西、南々東	一、〇	〇、九	二、八	一七、七	微
七月六日	仝十一時零二分二十八秒	—	—	—	微	—	—	—
仝	午後一時三十八分十一秒	—	—	—	微	—	—	—
仝七日	仝零時六分十二秒	七分三十秒	南々西、北々東	二、九	一、四	一、五	三、三	微
仝十五日	午前九時十八分零秒	—	—	—	微	—	—	—
仝	午後二時二十一分五十八秒	—	—	—	微	—	—	—
仝十九日	仝五時五十七分三十秒	一分二十秒	南西、北東	一、〇	一、〇	三、一	一九、七	微
七月廿一日	午後八時十九分二十秒	六分零秒	南西、北東	三、六	一〇、五	九、二	一六、〇	〇、三秒時間ニ付〇、五
仝廿四日	午前六時十五分三十五秒	—	—	—	微	—	—	—
八月四日	仝四時四十分二十一秒	一分三十秒	南東、北西	〇、二	〇、五	七、八	二四六、五	微
仝五日	仝八時十四分五十秒	三十八秒	南、北	〇、七	〇、四	一、八	一六、一	—
仝廿一日	午後零時二十六分零八秒	四十五秒	東北東、西南西	〇、一	〇、二	〇、六	三、九	微
仝廿四日	仝九時四十四分十秒	—	—	—	微	—	—	—
九月三日	仝二時十一分二十三秒	三十秒	南、北	—	微	—	—	—
仝八日	午前十時四十九分二十五秒	一分三十秒	東南東、西北西	〇、八	〇、六	二、四	一八、五	—

明治二十四年一月ヨリ十二月ニ至ル一ケ年間中央氣象臺ニ於テ觀測シタル地震ハ總テ百二十三回ニシテ其月日時刻方向強弱ヲ列記スレハ左ノ如シ

月日	發震時	震動ノ時間	水平動 震動ノ方向	最大水平動 時間(秒)	最大水平動 震幅(粍)	最大速度 一秒時間(粍)	最大加速度 一秒時間(粍)	上下動 最大上下動(粍)
一月二十九日	午後五時二十分三十秒	—	—	—	微	—	—	—
二月十三日	午前六時三十分零秒	二分五十秒	南々東、北々西	一、四	〇、五	一、一	五、〇	微
仝	仝 六時五十六分二十秒	二分零秒	南々東、北々西	一、一	〇、五	一、四	八、二	—
仝 十四日	仝 十時十分三十四秒	一分十五秒	東南東、西北西	〇、二	〇、四	六、三	一九七、四	—
仝 二十日	午後二時十七分十六秒	—	—	—	微	—	—	—
三月一日	仝 四時十七分四十三秒	二分二十秒	南西、北東	〇、三	〇、五	五、二	一〇九、六	〇、三秒時間ニ付〇、三
仝 二日	午前七時十七分四十秒	—	—	—	微	—	—	—
仝 二十日	仝 八時三十九分三十八秒	不詳	東、西	—	微	—	—	—
仝 二十四日	午後十時二十二分三十一秒	—	—	—	微	—	—	—
仝 二十五日	午前五時十一分零秒	一分零秒	東、西	〇、六	〇、三	一、六	一六、四	—
仝 二十八日	午後三時二十八分零七秒	—	—	—	微	—	—	—
四月六日	仝 四時零八分十秒	—	—	—	微	—	—	—
仝 七日	午前九時四十九分四十六秒	六分零秒	南々西、北々東	一、五	〇、八	一、七	七、〇	微
仝 十五日	午後二時五十九分十六秒	十秒	東、西	—	微	—	—	—
仝 十八日	仝 零時零五分零六秒	—	—	—	微	—	—	—
仝 二十一日	午前十時四十九分零七秒	三分零秒	西北西、東南東	一、一	一、九	五、四	三一、〇	微
仝 二十五日	午後十時二十四分二十三秒	—	—	—	微	—	—	—
仝 三十日	午前十一時五十四分零三秒	—	—	—	微	—	—	—
五月五日	仝 八時十六分四十八秒	二分三十秒	南々東、北々西	一、三	〇、六	一、四	七、〇	—
仝 九日	仝 九時五十一分三十八秒	—	—	—	微	—	—	—

シ其面積三千八百六十方里ヲ震盪セリ就中強震部ハ越前西九分ニシテ其面積百六十方里微弱震部ハ越前東一分加賀、能登、越中、飛驒、美濃、尾張、三河、近江、伊勢、志摩、伊賀、山城、河内、和泉、若狭、攝津、丹後、丹波、但馬、播磨、因幡、伯耆、美作、淡路、各全國、備前北東八分、紀伊北西分、大和北九分、信濃西三分ニシテ其面積三千七百方里ナリ

十二月廿四日午前五時三十分頃

此地震ハ甲斐、駿河ノ東部及相模ノ北西部ヲ震心トシ北東ハ陸羽地方ヨリ南西ハ五畿ニ亘リ總面積八千五百三十方里ヲ震盪セリ就中震動ノ強烈ナリシ部分ハ甲斐、相模、伊豆、武藏、安房、上總、上野、各全國、駿河東七分、信濃東五分越後南西一分、下野南西五分、常陸南西二分、下總西六分ノ十三ヶ國ニシテ其面積二千三百六十方里ナリ今此域内ニ於ケル震度ノ梗概ヲ擧クレハ

甲斐國北都留郡ニテハ石碑ノ臺石東西ニ面スルモノ北東南西ニ移動シ又道路ニ長二三間乃至七八間巾二三分ノ龜裂ヲ生セシモノ數ヶ所、家屋土藏等ノ壁震落、物品ノ東西ニ倒伏、岩石ノ轉落スル等ノ事アリ而シテ此地震ニ引續キ夥多微震アリシ

相摸國足柄上郡ニテハ水平上下ノ兩動烈シク西向ノ石碑北向ニ移動シ鐵道線路幷道路ノ裂罅ヲ生セシ所アリ足柄下郡ニテモ震動烈シク戸障子ハ溝ヲ脱シ屋壁ノ震落セシ所アリ又愛甲郡ニテハ前二郡ヨリ稍弱キ方ニアリト雖モ物品ノ東西ニ倒伏スルモノ振子時計ノ運轉ヲ停ムルモノ等アリテ孰レモ此地震ニ續キ微震數回アリ

駿河國駿東郡須走村字籠坂峠ニテハ長サ二十間巾三尺ノ所深サ二尺陷落シ、其他道路ニ裂罅ヲ生シ山崖ノ崩壊セシモノ數ヶ所アリ沼津町ニテハ土藏ノ鉢卷ヲ震落シ液体ノ溢出等アリ三島町ニテモ土藏ノ庇ヲ破損セシモノ二ヶ所アリシ

上ニ記スル所ハ其重ナルモノニシテ其他往々液体ノ溢出、振子時計ノ運轉ヲ止ムル等アリタリ又微弱震部ヲ擧クレハ下總東四分、常陸北東八分、下野北東五分、越後北東九分、信濃西五分、駿河西三分、遠江、三河、尾張、美濃、飛驒、越前、加賀、越中、岩代、磐城各全國、陸前南八分、羽前南九分、若狭北東五分、近江北東六分、伊勢北東二分ノ二十一ヶ國ニシテ其面積六千百七十方里ニ達セリ

七日	八日	九日	十日	十一日	十二日	十三日	十四日	十五日	十六日	十七日	十八日	十九日	二十日	廿一日	廿二日	廿三日	廿四日	廿五日	廿六日	廿七日	廿八日	廿九日	三十日	合計
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	一
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	一	—	—	一
三	一	一	—	—	一	一	—	—	—	—	—	—	一	二	—	二	—	—	—	一	一	—	—	七四
四二	四一	四三	四〇	三八	三九	三四	二九	二九	二八	一六	八	六	一六	一八	一二	一六	一八	六	六	四	五	一四	一三	一六五〇
四五	四二	四四	四〇	三八	四〇	三五	二九	二九	二八	一六	八	六	一七	二〇	一二	一八	一八	六	六	五	七	一四	一三	一七二六
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	一
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	一	—	—	一
二	一	一	—	一	一	一	—	—	—	—	—	—	—	一	—	一	—	—	—	—	一	—	—	四五
二七	一七	一五	一二	四	六	一二	一二	一二	一三	一五	九	四	九	八	五	八	九	九	五	八	五	五	二	八五一
二九	一八	一六	一二	五	七	一三	一二	一二	一三	一五	九	四	九	九	五	九	九	九	五	八	七	五	二	八九八

十一月十五日午前十一時三十二分頃

此地震ハ越前西部ノ海床ニ發シタルモノヽ如ク東ハ飛驒、信濃ヨリ西ハ伯耆、美作ニ亘リ南ハ大和、紀伊ニ達

四月	|	|	二	二	|	|	|	〇
五月	|	|	五	五	|	|	一	一
六月	|	|	三	三	|	|	二	二
七月	|	|	四	四	|	|	三	三
八月	|	|	一	一	|	|	一	一
九月	|	|	|	〇	|	|	|	〇
十月（二十七日マテ）	一	|	|	一	一	一	一	三
合計	一	一	二四	二六	一	一	一〇	二二

又十月二十八日大震後ハ毎日無數ノ地鳴ト共ニ夥多ノ地震アリ就中大震ヲ距ル三十日即チ十一月二十八日午後九時四十分頃強烈ナル震動アリ續ヒテ又強震アリタリ然レヒ幸ニ大ナル被害ナカリキ今大震以降十一月三十日マテ地震回數ヲ列擧スレハ左ノ如シ

附言　十月二十八日大震以降岐阜ハ同日午後一時五十五分マテ名古屋ハ同日午後一時マテ殆ト絶ヘス震動シ擧テ數フ可カラサリシヲ以テ單ニ之ヲ一回ノ地震ト見做シテ算入ス

月日	岐阜 劇	岐阜 烈	岐阜 強	岐阜 微弱	岐阜 合計	名古屋 劇	名古屋 烈	名古屋 強	名古屋 微弱	名古屋 合計
十月廿八日	一	|	九	九三	一〇三	一	|	四	一二一	一二六
廿九日	|	|	一五	三〇三	三一八	|	|	七	一七八	一八五
三十日	|	|	一七	一五六	一七三	|	|	四	八九	九三
卅一日	|	|	三	一二三	一二六	|	|	三	七六	七九
小計	一	|	四四	六七五	七二〇	一	|	一八	四六四	四八三
十一月一日	|	|	五	九四	九九	|	|	四	五二	五六
二日	|	|	四	八八	九二	|	|	五	二五	三〇
三日	|	|	|	八一	八一	|	|	一	三〇	三一
四日	|	|	二	七六	七八	|	|	二	一八	二〇
五日	|	|	一	五二	五三	|	|	三	一七	二〇
六日	|	|	四	六三	六七	|	|	二	一四	一六

攝津國八部郡奥平野村湊山麓ニ於テ炭酸水ノ湧出スル所アリ大震ノ際水量増加シ湯壺ニ滿溢シテ天王川ニ流出スルニ至レリ又神戸市諏訪山ノ鑛泉モ湯壺ノ泉量三寸許ヲ増シタリ

美作國大庭郡神湯村大字湯本ニアル湯原ノ温泉ハ大震以來湧出ノ量大ニ増加シ殆ト平常ニ倍セリ

因幡國岩井郡岩井村近傍來部ノ温泉ヲ距ル三町餘字齋藤屋敷ト稱スル所ノ温泉ハ大震後湧出量ヲ増加シ前日ニ比シ凡三倍強トナリタリ但温度ニハ異常ナカリシ

岩代國北會津郡東山温泉ハ寒氣ニ向ヒ落葉ノ季節ニ至レハ水量減少スルノ例ナルモ本年ハ其季ニ至テモ更ニ減少セス反テ平年ヨリ増量ヲ呈シ且ツ温度モ幾分カ上昇シタリ

又長野測候所ノ報告ニ依レハ信州淺間嶽ハ大震後噴烟甚シク火光ヲ見ルニ至リタリト云フ今其大要ヲ擧クレハ

十月三十日午後八時頃淺間嶽噴火々光ヲ見ル僅ニ二十分時間ナリ以來十一月一日午後九時頃マテ火光ヲ見サルモ山頂ノ天際紅色ヲ呈シ噴烟甚シク一時間許ニシテ鎮靜ス翌二日午前九時三十分ニ至リ噴烟最モ甚シク蜒々トシテ群馬縣ノ方ヘ亘リ一時間許ニシテ平狀ニ復ス山頂ヲ望ムニ灰白色ヲ呈ス是レ噴烟ノ際灰ヲ噴出セシナラン爾後三日午前五時及九時ノ二回噴烟甚キモ其時間三十分乃至四十分ニシテ平常ニ復シタリ

更ニ岐阜、名古屋兩測候所ニ於テ觀測セル十月二十八日大震前ノ地震ヲ調査スルニ二十四年一月ヨリ九月マテ岐阜ニ於テハ二十五回名古屋ニ於テハ九回ノ地震アリシト雖モ皆震動微弱ニシテ大震ニ先タツヿ五十八時間即チ十月二十五日午後九時十四分始メテ一回ノ強震ヲ感シタリ今二十四年一月ヨリ十月二十七日マテノ地震回數ヲ列記スレハ左ノ如シ

月	岐阜 強	岐阜 弱	岐阜 微	岐阜 合計	名古屋 強	名古屋 弱	名古屋 微	名古屋 合計
一月	|	|	|	○		|	|	○
二月	|	一	二	三	|	|	一	一
三月	|	|	七	七	|	|	一	一

*尾張國木曾、庄内二川ノ流域ニ係ル堤防ハ概シテ破裂又ハ陷沒ノ害ヲ蒙ラサルハナシ故ニ被害ノ箇所ヲ擧クルニ遑アラサルヲ以テ多クハ之ヲ省ク

又此大震ノ爲メ鑛泉等ニ異狀ヲ呈セシ旨報告アリシモノヲ抄記スレハ

伊勢國一志郡榊原村ノ温泉ハ大震ニテ俄然地中(湯壺)ヨリ青泥並普通湯ノ花ト稱スルモノ多量ニ噴出シ水量ハ從前ノ三倍程トナリ温度ハ攝氏十二度ヲ高メ其近傍三箇所ニ新ニ泉水ヲ噴出セリ因ニ記ス同所ハ安政年度ノ大地震ニハ或ハ地中ニ於テ泉路ヲ變シタルモノナルカ震動後湧出ヲ止メタルコトアリシカ一年餘ヲ經テ舊ニ復シタリト云フ

伊豆國田方郡上狩野村吉奈並同村湯ケ島ノ兩温泉共ニ平常ニ比シ攝氏十五六度ノ温度ヲ增セリ加茂郡上河津村湯ケ野ノ温泉ハ平常攝氏五十二度位ナリシカ大震後四五度温度ヲ增セリ又同地近傍ニ湧出スル好飲料水アリシカ大震後二三日ヲ經テ湧出ノ量凡五割ヲ增シ且温度ヲ增シ飲料ニ適セサルニ至レリ同郡稻生澤村蓮臺寺ノ温泉ハ大震後温度ヲ減シ入浴不適ナリシカ三四日ヲ經テ舊ニ復シタリ

駿河國志太郡青島村志太鑛泉場潮生館構内ニ噴出スル天然瓦斯ハ平常少量ナルモ大震ノ際地下鳴動ト同時ニ噴出ノ量數倍シ爲メニ瓦斯溜ヲ覆フ所ノ鐵製ノ蓋(圓壔形ニテ高サ凡三尺直經凡七尺余)一丈ヲ上下スルニ至レリ

又同所ノ鑛泉モ大震ノ際水量俄ニ平常ニ倍シ其近傍池中ハ濁水ヲ噴出ス其高サ三四尺ニ及ヘリ又駿東郡大平村ニアル噴水井(深サ凡三十一間余)ハ從前僅ニ水ノ湧出スルニ過キサリシカ大震以後夥多ノ小砂ヲ噴出シ隨テ水量以前ニ數倍シ樋口ヨリ一尺二三寸ノ高サニ噴出セリ

甲斐國甲府市ニ於テハ堀拔井戸ノ水ニシテ從來噴出ノ僅少ナリシモノ震災後俄ニ水勢ヲ增シタリ

信濃國諏訪郡ニ於ケル温泉井水等大震ノ際一時頗ル汚濁シ殊ニ温泉ハ俄ニ其量ヲ增シ温度上昇セシカ暫時ニシテ平常ニ復シタリ

上野國碓氷郡ニ於ケル磯部鑛泉ハ大震ノ際湧出ノ水量ヲ增加シタルモ三四日ヲ經テ舊狀ニ復シタリ

越中國婦負郡ノ山田温泉ハ大震後温度頓ニ增加シ又畔藥師堂ノ近傍ニ一ノ熱泉湧出シタリト云フ

山頂又ハ山腹ヲ剝キ沿岸地ヲ併セテ凹沒ス其深サハ十數尺ニシテ樹木民家社寺擧テ原地ト共ニ墜落シ之ニ沿ヒタル道路ハ從テ位置ヲ變シ昨下ル所ノ坂路今却テ上ル所ノ路トナレリ

本巢郡板所村ハ其村落山下ニアリ一朝前面ノ田畝數十町歩ヲ陷落シ其變動ニ依リ平野水鳥ノ二村間ニ於テ根尾川ノ河底ヲ高メタル歟自然ニ水行ヲ阻メ一大瀦水(長凡十五町幅凡三町)ヲ生セリ

前陳ノ外激烈震部內ニ於テハ地盤ノ陷落、隆起幷龜裂、山嶽崩壞、堤防破壞、橋梁損落、道路破裂、泥水噴出、家屋毀損、人畜死傷等夥ク一々枚擧ニ遑アラス左ニ其被害統計ヲ掲ク

國名	人 死亡(人)	人 負傷(人)	家屋 全潰(軒)	家屋 半潰(軒)	道路 破裂(箇所)	橋梁 損落(箇所)	堤防 崩壞(箇所)	山嶽 崩壞(箇所)
美濃	四、八八九	一二、三一一	七〇、〇四八	三〇、九九四	一五、二一七	八、一九八	四、五六二	九、九二九
尾張	二、三三一	四、五五〇	六七、七七一	四三、五七〇	三、五四〇	一、九三一	*一、一〇一	二九
越前	一二	一〇五	一、〇八九	一、二〇五	四九二	一二	一一〇	一九八
三河	八	四四	一、一二八	二、一五八	六七七	二三六	一、〇七二	六五
近江	六	四七	四〇四	七七六	四七	七	一七七	一
伊勢	一	一七	六二五	七五二	二四	二	九五	—
攝津	二三	七六	二四七	一四八	—	—	三	—
大和	一	二	一六	二八	五	—	—	—
和泉	一	一六	一四	二	—	—	—	—
河內	—	二	七五〇	五五八	—	—	—	—
山城	—	—	一三	八	二二	二	三三	—
遠江	—	—	三二	三一	一九	一	二四	—
信濃	一	二	一	五	一八	一	—	一
甲斐	—	三	四	八	—	—	—	—
飛驒	—	—	—	—	五	二	—	—
加賀	—	—	二五	八〇	—	—	—	—
越中	—	—	二	一	一	—	—	—
伊賀	—	—	七	—	—	—	—	一

伊豫　全
九州　全
壹岐　全
對馬　全
佐渡　全

上ニ記スル所ハ一般ノ觀察上ヨリ震域ヲ概別シタルモノナレハ仔細ニ之ヲ調査スレハ激烈震部內或ハ稍震動ノ輕キ所アリ又强烈震部內ニモ間々震動ノ比較的ニ强キ所アルハ素ヨリ論ヲ俟タサルナリ

今回ノ地震ニ際シ變狀最モ甚シカリシハ美濃國大野本巢兩郡ニ跨ル所ノ根尾谷近傍トス即チ岐阜測候所ノ報スル所ニ據レハ

美濃大野郡西根尾村能郷ニ一大山アリ白山(加賀ノ白山ト異ナリ)ト云フ根尾川ノ水源トス上流大川原ヨリ山口ニ至ルノ間ニ十里餘ノ溪谷アリ之ヲ根尾谷ト總稱ス西ヲ大野郡、東ヲ本巢郡トス同郡三箇ノ組合役塲十九ノ村落ヲ有シ戶數千有二戶多クハ一村ノ戶數弱三四十ニ過キス對岸大野郡モ亦タ之ニ類ス十月二十八日大震ノ際、此方ニ當リ鳴動甚シク下流諸部落ノ人民大ニ恐怖セリ大震ノ後村民根尾谷ヲ過キ谷中ノ變狀ヲ目擊シテ報道スル所ヲ聞クニ大野郡高尾村、本巢郡金原村、以北水鳥市塲ノ兩村ヨリ上流能郷長島ノ兩村間凡七里間ノ對岸ト大野郡德山村、本巢郡長嶺村ノ間ニ於テ異常アリ即チ馬坂ノ北山腹ノ樹石ヲ剝落シ其南矢谷ト云フ所最モ崩潰甚シ而シテ本巢郡ニ至リ長島村以下長嶺門脇ノ兩村間同樣ノ狀ヲ現出シ且ツ地盤陷落スルモノ六七ケ所ニシテ板所、水鳥ノ兩村間橋梁ヲ墜シ溪谷ヲ沒シ流水此ニ至テ溢レ下流大ニ乾涸シ僅ニ一小流ヲ通スルノミ而シテ其陷落セシ所ハ川敷水平ヨリ下ルコト數十丈民家寺院其中ニ倒下シ近傍ノ巨石點々數所ニ堆積シ大震後四日ニ至リ尙墜落シテ震動止マス其顚覆倒潰セシ部落ハ平野、板屋、板所、市塲、門脇等ノ諸村ニシテ住民生存者殆ント無キノ慘狀ヲ呈セリ

又大野郡水鳥村ニ於ケル地盤大陷落及本巢郡板所村ニ於テ一大潴水ヲ生セシ狀況ヲ抄記スレハ

大野郡水鳥村ハ後ニ山ヲ負ヒ前ハ根尾川ニ對シ山麓ニ村落アリ十月二十八日早朝大地ノ鳴動ト共ニ

備中　全
阿波　全
讃岐　全
土佐　東二分

微弱震部

越後　北東八分
上野　北東三分
上總　東九分
下總　全國
常陸　全
下野　全
磐城　全
岩代　全
羽前　全
陸前　南西四分
羽後　南小部
土佐　西八分
出雲　全國
備後　全
石見　全
安藝　全
周防　全
長門　全

面積八千七百三十方里

紀伊　北東四分

強震部

駿河　東四分
甲斐　東六分
信濃　北東四分
越中　東三分
伊豆　全國
相摸　全
武藏　全
安房　全
上總　西一分
上野　南西七分
越後　南西二分
丹後　西二分
但馬　全國
播磨　全
淡路　全
紀伊　南西六分
和泉　西一分
因幡　全國
伯耆　全
美作　全
備前　全

面積三千三百九十方里

尾張	南一分
越前	北西二分
近江	南西七分
伊勢	南九分
加賀	北九分
飛驒	全國
三河	仝
遠江	仝
志摩	仝
伊賀	仝
若狹	仝
山城	仝
大和	仝
河內	仝
攝津	仝
丹波	仝
丹後	仝
越中	西七分
能登	南一分
信濃	南西六分
駿河	西六分
甲斐	西四分
和泉	東九分

面積二千九百十方里

其震度ノ梗概ヲ擧クレハ豊後國南海部郡ニ於テハ墻壁及土藏ノ壁ニ裂罅ヲ生シ屋瓦ノ墜落等アリ速見郡ニ於テハ家屋ノ鴨居障子ノ外レタル所及屋壁ニ裂罅ヲ生シタル所アリ北海部郡ニ於テハ屋瓦ヲ落シ屋壁ニ裂罅ヲ生シ棚上ノ物品顛落シ或ハ石燈籠ノ轉倒シタルモノアリ東國東郡ニ於テハ振子時計其運轉ヲ停止シ殊ニ大内村ト杵築町間ニ架設ノ永代橋（石造ニシテ長サ六十八間アリ）中央ヨリ北方二十六間墜落セリ西國東郡ニ於テハ家屋及土藏ノ壁ニ裂罅ヲ生シ練塀等ノ破損シタル所アリ又酒醤油等ノ醸造家及紺屋ノ如キハ液体地上ニ溢出シ陶器商ノ如キモ多少損害ヲ被レリ直入郡ニ於テハ棚上ノ物品轉落シ山崖及石垣ノ潰レタル所アリ之ニ亞キテ稍々强烈ナリシハ日向ノ西臼杵郡、伊豫ノ宇和郡、安藝ノ廣島市等ニシテ是等ノ地ニ於テハ液体ノ溢出振子時計ノ運轉ヲ停止スル等ノコトアリ更ニ微弱震部ヲ擧クレハ豊前（西一分）筑後（西三分）肥後（西一分）日向（南西二分）土佐（東六分）伊豫（東四分）安藝（東七分）長門（北六分）大隅、薩摩、肥前、筑前、石見、出雲、伯耆、因幡、備後、備中、備前、美作、讃岐、阿波、淡路（各全國）但馬（南西一分）播磨（西九分）和泉（西一分）紀伊（西三分）ニシテ其面積三千四百七十方里ナリ

十月二十八日午前六時四十分頃

此地震ハ美濃、尾張地方ニ發シ西ハ本州全土ヲ震ヒ延ヒテ九州、四國ニ波及シ北東ハ遙ニ陸羽地方及佐渡ニ達ス其面積一万五千七百五十方里ニ亘ル今震度ニ據リテ地方及面積ヲ概別スレハ

劇震部

美濃	西九分	面積七百二十方里
尾張	北九分	
越前	南東八分	
加賀	南一分	
近江	北東三分	
伊勢	北一分	

烈震部

美濃	東一分

ル所ノモノトス

同日午後九時五分ニ又地震セリ其性質震源等ハ粗々前回ノ地震ニ等シキモ其震域ハ稍狹ク總面積三千零五十方里ナリ就中強震部ハ伊豫（北東六分）土佐（北二分）阿波、讚岐（各西小部）備後（南一分）安藝（東小部）ニシテ其面積三百二十方里、微弱震部ハ阿波、讚岐、安藝（殆ト全國）土佐（南八分）伊豫（南西四分）備後（北九分）備中、備前、美作、出雲、石見、周防、長門（各全國）播磨（西三分）伯耆（南西八分）豐前（東六分）豐後（東八分）ニシテ其面積二千七百三十方里ニ達セリ

七月二十一日午後八時十九分頃

此地震ハ本州ノ東部ヨリ中部ニ亘リ其總面積八千百八十方里ニ達シ就中強震部ハ磐城、下野、下總、常陸（各全國）陸前（南一分）岩代（南東六分）上野（東五分）武藏（北東五分）上總（北二分）ニシテ其面積二千方里ニ及ヒタリ而シテ此部內ニ於テハ往々液体ノ溢出振子時計ノ運轉ヲ停止スル等ノ事アリタレトモ大ナル損害ハナカリシ弱震部ハ陸前（中央八分）岩代（北西四分）上野（西五分）武藏（南西五分）上總（南八分）安房（全國）相模（殆ト全國）甲斐（北東四分）信濃（北東一分）越後（南東五分）羽前（南東六分）陸中（南一分）ニシテ其面積一千八百三十方里微震部ハ陸中（北九分）陸奥（南東二分）羽後（南東五分）羽前（北西四分）越後（北西五分）信濃（南西九分）甲斐（南西六分）駿河、伊豆、遠江、三河、尾張（各全國）美濃（東六分）飛驒（東八分）越中（東四分）ニシテ其面積四千三百五十方里ニ達セリ

八月二十八日午後五時三十六分頃

此地震ハ周防洋ニ發シ四方ニ傳導シタルモノヽ如シ而シテ其總面積一千三百五十方里ニ達シ就中強震部ハ周防（南西五分）長門（南一分）ニシテ其面積百方里微弱震部ハ周防（東五分）長門（北九分）石見（南西七分）安藝（全國）備中（西一分）伊豫（中央四分）豐後（北八分）豐前（全國）筑前（東七分）筑後（東六分）肥後（北一分）ニシテ其面積一千二百五十方里ナリ

十月十六日午前七時六分頃

此地震ハ豐後海峽近傍ヲ震心トシテ東ハ四國ヲ超テ紀伊、播磨、因幡ニ亘リ西ハ九州全土ヲ震ヒ其面積五千二百六十方里ニ達セリ而シテ強震部ハ豐後（全國）豐前（東九分）筑後（東七分）肥後（東九分）日向（北東八分）土佐（西四分）伊豫（西六分）周防（全國）安藝（西三分）長門（南四分）ニシテ其面積一千七百九十方里就中震動ノ最モ強カリシハ豐後ノ東部トス今

陸前國牡鹿郡石卷測候所ニテハ最初微弱ナル震動ヲ感セシカ六秒時ヲ經テ俄然急劇ナル震動ヲ起シ引續キ七秒時間ハ著キ震動ヲ呈シ其方向ハ東—北—東、西—南—西ニシテ〇、六秒時間ニ六、八粍ノ震幅ヲ顯セリ

同國宮城郡原町ニテハ西方ノ山嶽鳴響スルコト恰モ遠雷ノ如クナリシカ暫時ニシテ發震シ東西ノ方向ニ震動スルコト甚タ強ク又仙臺市ニテハ初メ微響アリシカ忽チニシテ其聲響激烈トナリ且ツ上下ニ震動スルコト凡三分時間ナリシ

羽後國由利郡ニテハ池水地上ニ溢出シ振子時計運轉ヲ停止シ且震動時間モ甚タ長カリシ

羽前國最上郡ニテハ震動甚タ強ク恰モ舟中ニ在ルカ如ク室內ノ掛物等皆動搖セリ

更ニ弱震部ヲ擧クレハ十勝南二分日高南東六分渡島東一分陸奧北西五分羽前南西八分磐城南西七分常陸、下總、上總各全國岩代東七分下野東七分武藏東二分ニシテ其面積二千八百三十方里又微震部ハ釧路南五分十勝中央五分日高北西四分膽振南東二分渡島中央八分越後北東一分岩代西三分下野西三分上野東一分武藏中央四分相模東六分安房全國ニシテ其面積一千九百六十方里ナリ

又同日午後六時三十分ニ於テ同地方ニ地震アリ蓋シ其震源幷性質等ハ前者ト粗々同一ナルカ如シト雖モ其震域ハ稍狹小ニシテ前者ノ半ニ過キサルモ強震部ハ陸奧南三分陸中殆ト全國羽後東一分陸前北東小部ニシテ其面積一千百四十方里弱震部ハ陸奧中央六分羽後中央八分陸中南小部陸前北東八分羽前北東一分ニシテ其面積一千二百八十方里微震部ハ渡島東一分陸奧北西一分羽後南西一分羽前中央五分陸前南西二分磐城殆ト全國岩代東二分ニシテ其面積一千二百二十方里ニ達セリ然レトモ損害ハナカリシ

七月十八日午前八時二十五分頃

此地震ハ東ハ五畿ヨリ西ハ九州ニ及ヒ其震域四千百十方里ニ達シタリ就中強震部ハ瀨戶內近傍即チ伊豫北八分讃岐西七分土佐北四分阿波西二分安藝南東一分備後南二分備中南二分備前南西一分ニシテ其面積五百五十方里微弱震部ハ丹後西五分丹波西六分攝津西七分但馬、播磨、淡路、因幡、伯耆、美作、出雲、石見、長門、周防、豐後各全國阿波東八分讃岐東三分土佐南六分伊豫南二分備前北東九分備中北八分備後北八分安藝北西九分豐前東九分肥後東三分日向北東五分ニシテ其面積三千五百六十方里ニ達セリ蓋シ此地方ニ於テ今回ノ如キ震域ノ廣大ナルト震度ノ強カリシハ甚タ稀ニ見

前表ニ由リテ之ヲ觀レハ地震ノ最モ多キ地方ハ美濃ノ千五百五十回、尾張ノ八百十八回、三河ノ三百七十四回、伊勢ノ二百五十二回、近江ノ百六十七回、越前ノ百三十九回、下野ノ百三十二回、伊賀ノ百〇三回、山城ノ百〇二回トス又地震ノ最少キ地方ハ北見、壹岐、對馬、琉球ノ各一回トス

顯著地震概況

本項ハ二十四年中二千六百七十回ノ地震中強烈震ニ係ル概況ヲ摘錄シタルモノナリ

三月一日午後四時十八分頃

此地震ハ北ハ磐城岩代邊ヨリ南ハ安房、相摸ニ亘リ其面積二千零九十方里ニ達セリ就中強震部ハ常陸(中央八分)下野(南五分)武藏(東三分)下總(西北七分)ニシテ其面積六百八十方里微弱震部ハ常陸(南北二分)下野(北五分)武藏(西七分)下總(東南三分)上總、安房、相摸(各全國)上野(西四分)岩代(南三分)磐城(南六分)ニシテ其面積一千四百十方里ニ及ヘリ

四月七日午前九時五十分頃

此地震ハ其震域南北ニ長ク即チ北ハ北海道ノ南部ヨリ南ハ安房相摸ニ及ヒ其面積七千四百五十方里ニ達セリ就中強震部ハ陸奥(東南五分)陸中、陸前(各全國)羽後(殆ト全國)羽前(東北二分)磐城(東北三分)ニシテ其面積二千六百六十方里ナリ

今強震部内ニ於テ特ニ震動ノ著シカリシモノヲ擧クレハ

陸奥國三戸郡ニテハ重ニ水平動ヲ感シ其方向ハ東西ニシテ甚タ強ク凡二分時間震動セリ夫レカ爲メ振子時計ハ其運轉ヲ停止シタリ

陸中國東閉伊郡宮古測候所ニテハ最初微弱ナル震動ヲ感シ俄然急劇ナル震動ヲ起シ南北ノ方向ニ於テ一分十五秒時間繼續セリ同國稗貫郡ニテハ轟然遠雷ノ如キ鳴響ト共ニ發震シ南－西、北－東ノ方向ニ震動スルコト四分時間ニ及ヒ夫レカ爲メ振子時計ハ其運轉ヲ停止シ釀造家ノ酒、桶外ニ溢流シ樹木左右ニ振搖シ又盛岡市ニテハ同時上下動ノ震動強ク凡六七分時間繼續セリ

丹波	八八	一	八七	
信濃	八〇	二	七八	
陸前	七四	二	七二	
加賀	七三	三	七〇	
河內	七二	一	七一	
志摩	七〇	一	六九	
大和	六五	一	六四	
飛驒	六一	一	六〇	
丹後	六一	一	六〇	
攝津	五六	一	五五	
常陸	五四	四	五〇	
磐城	五一	四	四七	
根室	五一	｜	五一	
上總	五〇	一	四九	
豐後	四七	二	四五	
下總	四五	七	三八	
相摸	四五	三	四二	
越後	四五	八	三七	
紀伊	四〇	一	三九	
遠江	三三	一	三二	
和泉	三二	一	三一	
甲斐	三一	二	二九	
岩代	三〇	一	二九	
駿河	二九	二	二七	
安房	二八	一	二七	
陸中	二二	三	一九	
陸奥	二一	二	一九	
上野	二一	四	一七	
石見	二一	｜	二一	
日高	九	二	七	
美作	九	一	八	
備前	九	二	七	
出雲	九	〇	九	
安藝	九	一	八	
長門	九	二	七	
阿波	九	二	七	
淡路	八	一	七	
周防	八	二	六	
備後	八	二	六	
因幡	七	一	六	
筑後	七	一	六	
讃岐	六	一	五	
土佐	六	二	四	
十勝	六	｜	六	
羽後	六	二	四	
豐前	五	一	四	
大隅	五	｜	五	
佐渡	五	一	四	
膽振	三	｜	三	
能登	三	一	二	
筑前	三	｜	三	
肥前	三	｜	三	
石狩	二	｜	二	
北見	一	｜	一	
壹岐	一	｜	一	
對馬	一	｜	一	
琉球	一	｜	一	

上總、安房、遠江、能登、越中、飛驒、伊賀、志摩、紀伊、大和、山城、河內、和泉、攝津、丹波、丹後、但馬、因幡、播磨、美作、伯耆、安藝、淡路、讃岐、豊前、筑後、肥後、佐渡各一回トス

地震ノ最强カリシハ十月二十八日濃尾地方ノ地震（第二圖第七號幷仝日記事參看）ニシテ之ニ亞クモノハ十二月二十四日甲斐、駿河、相摸地方ノ地震（第二圖第九號幷仝日記事參看）十月十六日豊後地方ノ地震（第二圖第六號幷仝日記事參看）七月二十一日磐城、常陸地方ノ地震（第二圖第四號幷仝日記事參看）四月七日陸中地方ノ地震（第二圖第二號幷仝日記事參看）七月十八日瀨戸內近傍ノ地震（第二圖第三號幷仝日記事參看）三月一日常陸地方ノ地震（第二圖第一號幷仝日記事參看）十一月十五日越前地方ノ地震（第二圖第八號幷仝日記事參看）八月二十八日山口地方ノ地震（第二圖第五號幷仝日記事參看）ナリ

國別地震回數及震度

本年中ニ於ケル國別地震回數及震度ヲ細掲スレハ左ノ如シ

國名	地震回數	震度 强烈	震度 微弱
美濃	一五五〇	三一	一五一九
尾張	八一八	四三	七七五
三河	三七四	一四	三六〇
伊勢	二五二	一五	二三七
近江	一六七	七	一六〇
越前	一三九	七	一三二
下野	一三二	六	一二六
伊賀	一〇三	一	一〇二
山城	一〇二	一	一〇一
若狹	九九	三	九六
武藏	九六	八	八八
肥後	八九	一	八八
伊豆	二〇	二	一八
釧路	二〇	五	一五
播磨	一九	一	一八
羽前	一八	一	一七
但馬	一七	一	一六
越中	一五	一	一四
日向	一四	二	一二
薩摩	一三	｜	一三
伊豫	一三	三	一〇
伯耆	一一	一	一〇
備中	一〇	二	八
佐渡	一〇	｜	一〇

前表ニ由テ之ヲ觀レハ地震最多ノ時刻ハ午後九時十時ノ間ニシテ第二ノ最多ハ午前五時六時ノ間ニアリ又最少ノ時刻ハ午後四時五時ノ間ニシテ第二ノ最少ハ午後三時四時ノ間ナリトス而シテ六時ヲ界トシ晝夜ニ區別スレハ夜間ノ多キコト百五十四回ナリ

地震ノ面積

地震面積ノ大ナル者ハ數千方里以上ノ廣域ニ達スト雖モ其小ナルモノニ至リテハ僅ニ一國一郡ニ止マルモノアリ今震域ノ廣狹ニ從ヒ之ヲ區別スレハ左ノ如シ

面積＼月	一月	二月	三月	四月	五月	六月	七月	八月	九月	十月	十一月	十二月	合計	平均
千方里以上	—	三	五	六	五	五	八	四	一	一三	九二	二五	一六七	一三、九
百方里以上	一	一二	一二	七	九	五	八	一〇	六	一四	三八八	一五六	六二八	五二、三
百方里以下	三三	五五	四七	七〇	五二	四九	四一	五八	二四	七一	九三二	四四三	一八七五	一五六、二
合計	三四	七〇	六四	八三	六六	五九	五七	七二	三一	九八	一四一二	六二四	二六七〇	二二二、五

前表ノ如ク一年間ノ震數二千六百七十回ノ內一千八百七十五回ハ震域百方里以下ニ止マリ六百二十八回ハ震域百方里以上、百六十七回ハ震域千方里以上ニ達シタリ就中震域五千方里以上ニ達シタルモノ九回一万方里以上ニ達シタルモノ一回アリタリ

地震ノ强弱

本年中ニ起リタル二千六百七十回ノ地震中强烈震八十四回、微弱震二千五百八十六回ナリ更ニ之ヲ百分率ニ改算スレハ强烈震ハ總回數百分ノ三、微弱震ハ百分ノ九十七ナリ而シテ强震ヲ感シタル地方ハ尾張四十三回美濃三十一回伊勢十五回三河十四回武藏、越後各八回近江、越前、下總各七回下野六回釧路五回常陸、磐城、上野各四回若狹、加賀、相模、陸中、伊豫各三回日高、陸奧、羽後、陸前、伊豆、駿河、甲斐、信濃、備前、備中、備後、周防、長門、阿波、土佐、日向、豐後各二回羽前、岩代、

合計	午後												午前						
	自十一至夜半時	自十至十一時	自九至十時	自八至九時	自七至八時	自六至七時	自五至六時	自四至五時	自三至四時	自二至三時	自一至二時	自零至一時	自十一至正午時	自十至十一時	自九至十時	自八至九時	自七至八時	自六至七時	自五至六時
三四	|	二	三	一	一	一	一	一	一	三	一	一	一	一	|	二	一	五	一
七〇	一	六	五	五	二	一	一	二	一	三	一	二	|	三	二	三	五	七	五
六四	五	三	二	三	一	|	三	二	二	|	一	二	一	二	三	五	二	七	四
八三	七	七	六	五	六	三	二	三	二	五	一	六	四	四	三	|	三	一	一
六六	四	|	三	三	三	二	一	三	四	四	二	二	八	四	八	五	二	一	四
五九	二	二	四	三	一	一	一	六	|	|	二	一	二	二	四	二	四	五	三
五七	|	二	五	三	三	五	二	四	三	二	三	二	二	二	四	三	一	四	|
七二	二	|	三	二	一	二	四	三	三	四	七	四	一	三	一	六	四	四	五
三一	一	|	三	一	二	一	一	|	|	三	一	一	五	一	三	二	一	一	一
九八	|	四	六	七	三	六	八	五	|	六	四	一	三	四	七	二	四	五	三
一四一三	六六	六九	七一	六六	七〇	四三	五三	三八	四四	五一	四九	四七	五五	五二	四九	四二	四八	五六	七二
六二四	二三	二六	四七	二七	二二	三四	二三	一九	二七	二六	三二	二九	二九	一八	二二	二四	一五	三一	三二
二六七〇	一一一	一二一	一五八	一二六	一一五	九九	一〇〇	八六	八七	一〇七	一〇四	九八	一一一	九六	一〇六	九六	九〇	一二七	一三一

全國地震概況

地震ノ多寡及區域

明治廿四年一月ヨリ十二月ニ至ル一年間日本全國ニ於ケル地震ノ總數ハ合計二千六百七十回（斯ノ如ク震動ノ回數非常ノ多數ニ上リタルハ主トシテ十月二十八日ニ於ケル濃尾地方大震ノ餘動夥多ナリシニ由ル而シテ右二千六百七十回ノ外尚ホ岐阜ハ二十八日ヨリ三十一日マテ七百十九回、名古屋ハ四百八十二回、津ハ百三十八回、京都ハ六十八回、大阪ハ四十五回ノ震動ヲ感シタレトモ次ノ諸表及卷末ニ揭クル第一圖ニハ暫ク其震數ヲ省ク）ナリ而シテ地震ノ最多キハ美濃尾張ニシテ三河、伊勢、近江、越前、伊賀、山城、若狹ノ諸國之ニ亞キ武藏、肥後、丹波、信濃、陸前、加賀、河內、志摩、大和、飛驒、丹後、攝津、常陸、磐城、根室、上總ノ諸國又之ニ亞キ豐後、下總、相摸、越後、紀伊、遠江、和泉、甲斐、岩代、駿河、安房、陸中、陸奥、上野、石見、伊豆、釧路、播磨、羽前、但馬、越中、日向、薩摩ノ諸國ハ又其亞ニシテ其他ノ諸國ハ概シテ十回以下ナリ其詳細ハ卷末第一圖ニ依テ了解スヘシ而シテ圖中全ク紅線ヲモ附セサル部分即チ北見（中央六分）天鹽、後志（各全國）石狩（北西四分）膽振（西二分）渡島（北西小分）ハ一回ノ報告タモ送來セサリシヲ以テ姑ク地震ナキノ地方ト見做シタリ

時別地震回數

本年一月ヨリ十二月ニ至ル一年間ノ地震回數ヲ一時間毎ニ調査スレハ左ノ如シ

月＼時	午　自零時至一時	自一時至二時	自二時至三時	自三時至四時	自四時至五時
一月	一	三	二	一	｜
二月	四	二	二	二	五
三月	二	四	五	二	三
四月	八	三	一	一	一
五月	三	｜	｜	｜	｜
六月	三	四	四	一	二
七月	｜	一	二	一	三
八月	二	一	一	三	六
九月	一	｜	｜	｜	二
十月	三	六	五	二	四
十一月	七四	八二	七六	六二	七七
十二月	一三	二四	二六	三〇	二五
合計	一一四	一三〇	一二四	一〇五	一二八

七月ノ降水量ハ前月ニ比シテ大ニ增加シ而シテ其配置ハ頗ル錯雜ヲ極メリ概シテ之ヲイヘハ內陸ニ寡クシテ海岸ニ多シ而シテ本州ノ西部及九州ノ北部幷美濃、近江、若狹、越前ノ諸國ハ概ネ四百粍已上ニ達シ特ニ敦賀近傍ニ於テハ六百粍已上ニ達シタル處アリ又降水量ノ最モ寡キハ信州地方幷ニ北海道ノ北部ニシテ此等地方ノ降水量ハ皆五十粍已內ナリ

八月ニ於テモ前月ト等ク降水量ノ配置頗ル錯雜セリ降水量ノ多キハ九州ノ西部幷ニ四國ノ南部ニシテ概子四百粍以上ニ達シ特ニ德島ニ於テハ六百粍已上ニ達シタリ但降水量ハ概シテ前月ヨリ少ク信州地方幷ニ關東ニ於テハ概子五十粍以內ニシテ北海道ノ北部モ亦タ甚タ寡シ

九月ニ於テモ降水量ノ配置尙ホ依然トシテ錯雜シ且前月ニ比シテ全國概子皆其量ヲ增シ西海岸及南海岸ハ概子四百粍已上ノ降水量ヲ呈シ而シテ紀州ノ南岸特ニ甚シク八百粍已上ニ達シタル處寡カラス但內陸ハ比較的ニ寡ク內海幷ニ信州地方ハ百粍已下ニシテ北海道ノ中央部ハ五十粍已下ニ止マレリ

十月ニ於テハ北海道ヲ除クノ外ハ降水量大ニ減シ內陸ハ概子五十粍已下トナリ海岸ハ五十乃至百粍ノ間ニ在リ但北海道ノ西北部ハ前月ニ比シテ著シク降水量ヲ增シ概テ百粍已上ニ達シ就中宗谷近傍ニ於テハ二百粍已上ニ達シタリ

十一月ニ於テハ日本海沿ヒノ地稍々降水量ヲ增シ概子百粍已上トナリ二百粍已上ニ達シタル地モ亦尠カラス又降水量ノ最モ寡キハ內海及四國九州仙臺以北北海道ニ至ル東海岸ノ地方ニシテ其量ハ皆五十粍以內ニ在リ

十二月ニ於テモ日本海岸沿ヒノ地ニ降水量多ク皆ナ百粍已上ニ達シ若狹ヨリ越中ニ至ル地方幷ニ北海道ノ西岸ハ概子二百粍已上ニ達セリ其他ハ概テ百粍已下ニシテ內海本州ノ中央部幷ニ北海道ノ北東部ハ五十粍ニ達セス

一月ノ降水量ハ表日本(太平洋沿ヒノ部分)ト裏日本(日本海沿ヒノ部分)トノ間ニ著シキ差別アリ即チ表日本ニ於テハ降水量甚タ寡ク概子五十粍己内ニ止マリ石州已東越後ニ至ル日本海岸ニ於テハ概ネ二百粍己上ニ上リ特ニ若狹ヨリ越中ニ至ル諸國ニ於テハ四百粍己上ノ多キニ達セリ

二月ニ於テハ降水量ノ配置前月ト稍々其趣ヲ異ニシ南海岸ノ降水量大ニ增加シ日本海岸ノ量稍々減少シ而シテ百粍ノ線ハ殆ント全海岸ヲ包圍セリ乃チ降水量ノ最モ寡キハ內海、本洲ノ中央部北海道ノ東部ニシテ其量五十粍已內ニ止マリ又其最モ多キハ紀州ノ南岸及加賀、能登、越中ノ三ケ國ニシテ其量二百粍已上ニ在リ

三月ニ於ケル降水量ノ配置ハ略ホ前月ト同一ニシテ其量ノ最モ寡キハ依然トシテ內海及北海道ナリ其量ハ五十粍已內ニ止マリ而シテ其量ノ二百粍已上ニ達シタルハ加賀、能登ノ兩國幷紀州ヨリ陸中宮古邊ニ至ル太平洋沿ヒ一帶ノ地ナリ

四月ニ於テハ海岸ニ降水量多ク內陸ニ寡シ而シテ其最モ寡キハ內海幷ニ東山北海ノ兩道ニシテ概ネ五十粍已下ニ在リ其最モ多キハ南海岸ニシテ二百粍已上ニ達シタル處寡カラス

五月ニ於テハ降水量ノ配置稍々錯雜セリ然レトモ要スルニ九州ノ西岸幷ニ四國紀州ノ南岸ニ降水量最モ多ク二百粍已上ニ達シ而シテ其最モ寡キハ尙ホ內海幷ニ東京已北ノ地トス此地方ニ於テハ降水量概子五十粍已內ニ止マル但北海道ノ南東海岸ニ於テハ百粍已上ニ達セリ

六月ニ於テハ降水量大ニ增加シ五十粍已內ニ止マル地ハ單ニ陸奥及北海道ノ西部ニ止マリ其他ハ概子皆百粍已上ニ達セリ但內海ノ降水量ハ尙ホ比較的ニ寡クシテ百粍已下ニ在リ而シテ降水量ノ最モ多キハ對馬幷ニ紀伊、志摩ノ南岸ニシテ此地方ニ於テハ四百粍已上ニ達セリ

明治二十四年雨雪量概況

全年　雨雪量ノ觀測全年ニ亘ラサルモノアルヲ以テ其詳細ヲ悉スコト能ハスト雖モ其主ナルモノニ就テイヘハ全年ノ總量最モ多キヲ嚴原トシ其量ハ三千二百五十四粍之ニ亞クモノヲ愛知縣北設樂郡田口ノ二千八百四十一粍岐阜縣郡上郡八幡ノ二千八百二十八粍トス又一ヶ月總量ノ最モ多キハ嚴原ノ一千百五十二粍(七月)之ニ亞テ三重縣北牟婁郡尾鷲ノ八百八十七粍(九月)トス又一日中ノ最多量ハ那覇ノ三百五十二粍(四月十一日)之ニ亞クヲ長崎縣南松浦郡福江島大瀬崎ノ二百六十三粍トス今各區ニ於ケル最多量ヲ擧クレハ左ノ表ニ示スカ如シ

流域	全年總量最多粍			一ヶ月間總量最多粍				一日中最多量粍			
	量	地名	番號	量	地名	番號	月	量	地名	番號	月日
西海	一〇八八	長崎	(四)	五九〇	高瀬	(七)	七月	二六三	大瀬崎	(一)	七月十三日
南海	二八四一	田口	(六六)	八八七	尾鷲	(一四)	九月	二四一	高須	(三)	八月五日
東海	一二八三	宮古	(二九)	四八〇	中村	(五)	六月	一五二	福島	(三)	九月卅日
内海 南岸	一八七五	部崎	(一)	六一一	部崎	(一)	七月	一五四	部崎	(一)	七月廿二日
内海 北岸	二二五四	本郷	(二〇)	五四六	西須惠	(三)	六月	一九七	横山	(一八)	七月廿一日
日本海	三二五四	嚴原	(七)	一一五二	嚴原	(七)	七月	二九三	烏帽子島	(一)	七月廿二日
津輕海峽	二一四三	惠山岬	(二一)	五六四	惠山岬	(二)	七月	一〇一	五所川原	(三)	九月五日
阿哥斯克海	六五九	宗谷	(一)	二〇〇	宗谷	(一)	十月	四八	宗谷	(一)	十月廿三日

概シテ之ヲイヘハ其最モ多キヲ對馬トシ三千粍ニ達シ之ニ亞テ多キヲ九州ノ西岸、九州ヨリ志摩ニ至ル南岸本州ノ極西部幷ニ越前ヨリ越後ニ亘ル日本海沿ヒノ地方トス是等地方ノ降水量ハ皆二千粍已上ニ達セリ又降水量ノ最モ寡キハ内海、信州地方及北海道ノ北東部ニシテ其量概ネ八百粍已下ニ在リ特ニ北海道網走地方ニ於テハ六百粍ニ達セサルモノアリ

更ニ各月ニ就テ其降水量ノ配置如何ヲ記スレハ左ノ如シ

番號	地名	觀測所
五九	福島縣南會津郡田島村	郡役所
六〇	仝　縣大沼郡高田村	仝
六一	仝　縣北會津郡若松町	仝
六二	仝　縣耶麻郡猪苗代町	小林榮宅
六三	仝　縣河沼郡坂下町	郡役所
六四	仝　縣耶麻郡喜多方町	仝
六五	新潟縣東蒲原郡津川町	仝
六六	仝　縣岩船郡村上町	仝
六七	山形縣山形市	測候所
六八	秋田縣由利郡本莊町	郡役所
六九	仝　縣雄勝郡湯澤町	仝
七〇	仝　縣平鹿郡横手町	仝
七一	仝　縣仙北郡大曲村大字大曲	仝
七二	仝　縣秋田市	測候所
七三	仝　縣南秋田郡船川村大字船川	村役場
七四	仝　縣山本郡能代港町	郡役所
七五	仝　縣北秋田郡鷹巢村	仝
七六	仝　縣鹿角郡花輪町	仝
七七	青森縣西津輕郡鰺ヶ澤町	仝
七八	北海道廳檜山郡鴎島(渡島國)	燈臺
七九	仝　廳奥尻郡稻穗崎(仝國奥尻島)	仝
八〇	仝　廳壽都郡辨慶崎(後志國)	仝
八一	仝　廳仝　郡開進町(壽都)(仝國)	測候所
八二	仝　廳積丹郡神威崎(仝國)	燈臺
八三	仝　廳高島郡日和山(仝國)	仝
八四	仝　廳札幌區(石狩國)	測候所
八五	仝　廳上川郡字忠別(上川)(仝國)	仝
八六	仝　廳増毛郡増毛(天鹽國)	燈臺
八七	朝鮮國京畿道仁川	稅關
八八	仝　國慶尚道釜山	電信局
八九	仝　國咸鏡道元山津	稅關
九〇	露西亞領西比利亞浦潮港	

第六區　津輕海峽

番號	地名	觀測所
一	青森縣中津輕郡清水村大字富田	郡役所
二	仝　縣南津輕郡黑石町	仝
三	仝　縣北津輕郡五所川原村大字五所川原	仝
四	仝　縣東津輕郡青森町	測候所
五	仝　縣下北郡田名部村大字田名部	郡役所
六	仝　縣仝　郡尻矢崎	燈臺
七	北海道廳松前郡福山(渡島國辨天島)	仝
八	仝　廳仝　郡白神崎(仝國)	仝
九	仝　廳上磯郡葛登支岬(仝國)	仝
一〇	仝　廳函館區(仝國)	測候所
一一	仝　廳龜田郡惠山岬(仝國)	燈臺
一二	仝　廳幌泉郡襟裳崎(日高國)	仝

第七區　阿哥斯克海

番號	地名	觀測所
一	北海道廳宗谷郡宗谷岬(北見國)	燈臺
二	仝　廳網走郡網走村(仝國)	測候所

一	福岡縣志摩郡烏帽子島	燈臺
二	仝 縣福岡市	測候所
三	仝 縣企救郡白洲	燈臺
四	山口縣豐浦郡六連島	仝
五	仝 縣赤間關市	測候所
六	*仝 縣豐浦郡小串村	村役場
七	長崎縣下縣郡嚴原天道茂町(對馬國)	測候所
八	山口縣豐浦郡角島	燈臺
九	*仝 縣仝 郡神田下村	小學校
一〇	*仝 縣大津郡向津具村大字向津具	村役場
一一	*仝 縣仝 郡深川村大字東深川	郡役所
一二	*仝 縣阿武郡佐々並村	村役場
一三	*仝 縣仝 郡生雲村大字生雲中	仝
一四	*仝 縣仝 郡德佐村大字德佐中	仝
一五	*仝 縣仝 郡萩町	郡役所
一六	*仝 縣仝 郡須佐村	村役場
一七	島根縣鹿足郡津和野町	郡役所
一八	仝 縣美濃郡益田町	仝
一九	仝 縣那賀郡濱田町	仝
二〇	廣島縣高田郡吉田村	仝
二一	仝 縣三次郡三次町	仝
二二	仝 縣三上郡庄原村	仝
二三	島根縣邑智郡川本村大字川本	仝
二四	仝 縣邇摩郡大森村	仝
二五	仝 縣飯石郡掛合村大字掛合	仝
二六	仝 縣神門郡今市町	仝
二七	仝 縣能義郡廣瀨町	仝
二八	鳥取縣會見郡米子町	仝
二九	仝 縣仝 郡境町	測候所
三〇	仝 縣日野郡二部村大字二部宿	郡役所
三一	仝 縣久米郡倉吉町	仝
三二	仝 縣八上郡賀茂村大字郡家	仝
三三	仝 縣高草郡吉岡村大字吉岡	仝
三四	仝 縣鳥取市	仝
三五	京都府熊野郡久美濱村	仝
三六	仝 府竹野郡網野村	仝
三七	仝 府中郡峯山町	仝
三八	仝 府與謝郡宮津町	仝
三九	仝 府天田郡福知山町	仝
四〇	仝 府何鹿郡綾部町	仝
四一	仝 府加佐郡舞鶴町	仝
四二	福井縣敦賀郡立石岬	燈臺
四三	石川縣金澤市	測候所
四四	仝 縣珠洲郡祿剛崎	燈臺
四五	富山縣伏木郡伏木町	測候所
四六	岐阜縣大野郡高山町(飛驒國)	郡役所
四七	新潟縣西頸城郡糸魚川町	仝
四八	仝 縣中頸城郡高城村	仝
四九	仝 縣刈羽郡柏崎町	仝
五〇	仝 縣雜太郡相川町(佐渡國)	仝
五一	長野縣上水內郡長野町	測候所
五二	新潟縣中魚沼郡十日町	郡役所
五三	仝 縣南魚沼郡六日町	仝
五四	仝 縣北魚沼郡小千谷町	仝
五五	仝 縣南蒲原郡三條町	仝
五六	仝 縣中蒲原郡新津町	仝
五七	仝 縣新潟市	測候所
五八	仝 縣仝 市	燈臺

* 頓野廣太郎私設

番號	地名	觀測所
一六	*山口縣玖珂郡高森村大字下久原	村役場
一七	*仝　縣都濃郡須々万村大字須々万本郷	仝
一八	*仝　縣玖珂郡横山村大字横山	岩國學校
一九	*仝　縣都濃郡鹿野村大字鹿野上	村役場
二〇	*仝　縣玖珂郡本郷村大字本郷	仝
二一	廣島縣佐伯郡二十日市町	郡役所
二二	仝　縣廣島市	測候所
二三	仝　縣安藝郡吉浦村(呉)	郡役所
二四	仝　縣高宮郡可部町	仝
二五	仝　縣賀茂郡西條町	仝
二六	仝　縣豐田郡忠海町	仝
二七	仝　縣御調郡尾ノ道町	仝
二八	仝　縣芦田郡府中市村	仝
二九	仝　縣深津郡福山町	仝
三〇	岡山縣上房郡高梁町	仝
三一	仝　縣岡山市	測候所
三二	仝　縣大庭郡久世村	郡役所
三三	仝　縣西北條郡津山町	仝
三四	兵庫縣津名郡江崎	燈臺
三五	仝　縣神戸市兵庫港和田岬	仝
三六	仝　縣神戸市	縣廳
三七	大坂府西成郡川北村大字本西島	多羅尾七郎宅
三八	仝　府仝　郡天保山	燈臺
三九	仝　府大坂市北區	測候所
四〇	仝　府東成郡天王寺村大字天王寺	郡役所
四一	仝　府若江郡八尾村大字大信寺	仝
四二	仝　府豐島郡池田町	仝

番號	地名	觀測所
四三	仝　府島下郡茨木村大字茨木	仝
四四	仝　府茨田郡枚方町	仝
四五	京都府船井郡園部村大字園部	仝
四六	仝　府南桑田郡龜岡町	仝
四七	仝　府乙訓郡向日町	仝
四八	仝　府紀伊郡伏見町	仝
四九	仝　府久世郡淀町	仝
五〇	仝　府綴喜郡田邊村大字田邊	仝
五一	仝　府相樂郡木津村大字木津	仝
五二	仝　府北桑田郡周山村大字周山	仝
五三	仝　府葛野郡太秦村大字太秦	仝
五四	仝　府京都市上京區	測候所
五五	仝　府愛宕郡田中村大字田中	郡役所
五六	仝　府宇治郡醍醐村大字醍醐	仝
五七	三重縣名張郡名張町	仝
五八	仝　縣阿拜郡上野町	仝
五九	大坂府堺市	市役所
六〇	仝　府大島郡鳳村大字長承寺	郡役所
六一	仝　府石川郡富田林村大字富田林	仝
六二	仝　府南郡岸和田村	仝
六三	和歌山縣海部郡苫ヶ島	燈臺
六四	仝　縣和歌山市	測候所
六五	仝　縣名草郡宮村大字秋月	郡役所
六六	仝　縣那賀郡岩出村大字清水	仝
六七	仝　縣伊都郡橋本村大字古佐田	仝
六八	仝　縣仝　郡高野村大字高野山	村役場

第五區　日本海

* 頼野廣太郎私設

一七	仝 縣名取郡茂ヶ崎村大字長町村	農學校
一八	仝 縣仙臺市	縣廳
一九	仝 縣宮城郡原ノ町	郡役所
二〇	仝 縣黑川郡吉岡町	仝
二一	仝 縣桃生郡野蒜村	安部熊藏宅
二二	仝 縣牡鹿郡石ノ卷町	測候所
二三	仝 縣仝 郡金華山	燈臺
二四	仝 縣志田郡古川町	郡役所
二五	仝 縣桃生郡飯野川村大字相ノ谷	仝
二六	仝 縣栗原郡築館村	仝
二七	仝 縣登米郡佐沼町	仝
二八	仝 縣本吉郡本吉村大字志津川	仝
二九	岩手 縣東閉伊郡宮古町	測候所
三〇	青森 縣三戶郡八戶町	郡役所
三一	仝 縣上北郡七戶村大字七戶	仝
三二	北海道 廳釧路郡釧路崎(釧路國)	燈臺
三三	仝 廳川上郡熊牛村(釧路)(仝國)	測候所
三四	仝 廳厚岸郡厚岸(仝國大黑島)	燈臺
三五	仝 廳花咲郡落石崎(根室國)	仝
三六	仝 廳仝 郡納沙布崎(仝國)	仝
三七	仝 廳根室郡根室花咲町(仝國)	測候所
三八	仝 廳仝 郡辨天島(仝國)	燈竿

第四區 內海 甲 南岸

一	福岡 縣企救郡部崎	燈臺
二	大分 縣大分郡大分町	測候所
三	愛媛 縣東宇和郡宇和町	郡役所
四	仝 縣西宇和郡八幡濱町	仝
五	仝 縣喜多郡大洲町	仝
六	仝 縣上浮穴郡久万町	仝
七	仝 縣伊豫郡郡中町	仝
八	仝 縣溫泉郡道後村(松山)	測候所
九	仝 縣和氣郡三津濱町	警察署
一〇	仝 縣仝 郡釣島	燈臺
一一	仝 縣越智郡今治町	郡役所
一二	仝 縣新居郡西條町	仝
一三	仝 縣宇摩郡川ノ江村	仝
一四	香川 縣那珂郡鍋島	燈臺
一五	德島 縣德島市	測候所

第四區 內海 乙 北岸

一	＊山口 縣豐浦郡豐東村大字上保木	小學校
二	＊仝 縣仝 郡豐田奥村大字殿敷	村役場
三	＊仝 縣厚狹郡須惠村大字西須惠	セメント製造會社
四	＊仝 縣仝 郡船木村大字船木	郡役所
五	＊仝 縣美禰郡伊佐村大字伊佐	小學校
六	＊仝 縣仝 郡太田村大字太田	郡役所
七	＊仝 縣吉敷郡山口町	測候所
八	＊仝 縣仝 郡大內村大字御堀	農學校
九	＊仝 縣佐波郡三田尻村大字三田尻	郡役所
一〇	＊仝 縣仝 郡出雲村大字堀	村役場
一一	＊仝 縣都濃郡德山村	郡役所
一二	＊仝 縣熊毛郡室積村大字室積	仝
一三	＊仝 縣玖珂郡柳井村	小學校
一四	＊仝 縣大島郡屋代村大字東屋代	郡役所
一五	＊仝 縣仝 郡油田村大字伊保田	村役場

＊頓野廣太郎私設

番號	地名	觀測所
五七	愛知縣幡豆郡西尾町	郡役所
五八	仝　縣額田郡岡崎町	仝
五九	仝　縣西加茂郡擧母村	仝
六〇	仝　縣東加茂郡足助村	仝
六一	仝　縣渥美郡堀切村	村役場
六二	仝　縣仝　郡豐橋町	郡役所
六三	仝　縣寶飯郡御油村	仝
六四	仝　縣南設樂郡新城町	仝
六五	仝　縣八名郡富岡村	仝
六六	仝　縣北設樂郡田口村	仝
六七	靜岡縣敷知郡濱松町	測候所
六八	愛知縣北設樂郡本郷村大字下田	佐々木友八郎宅
六九	靜岡縣榛原郡御前崎	燈臺
七〇	仝　縣駿東郡沼津町	測候所
七一	仝　縣加茂郡石室崎	燈臺
七二	仝　縣仝　郡神子元島	仝
七三	神奈川縣三浦郡城ヶ島	仝
七四	仝　縣仝　郡劔崎	仝
七五	仝　縣仝　郡觀音崎	仝
七六	仝　縣仝　郡橫須賀町	鎭守府測器庫
七七	仝　縣橫濱市	燈竿
七八	東京府荏原郡品川(品川沖第二砲臺)	燈臺
七九	仝　府東京市麹町區	中央氣象臺
八〇	千葉縣朝夷郡野島崎	燈臺
八一	仝　縣望陀郡鎌足村	櫻井開墾地
八二	栃木縣足利郡足利町	郡役所
八三	仝　縣安蘇郡佐野町	仝

番號	地名	觀測所
八四	仝　縣下都賀郡栃木町	仝
八五	仝　縣上都賀郡鹿沼町	仝
八六	仝　縣河内郡宇都宮町	測候所
八七	仝　縣芳賀郡眞岡町	郡役所
八八	仝　縣仝　郡仝　町大字東郷	湯澤中瀬宅
八九	千葉縣海上郡銚子町	測候所
九〇	仝　縣仝　郡犬吠崎	燈臺
九一	沖繩縣那覇若狹町村	測候所

第三區　東海

番號	地名	觀測所
一	栃木縣鹽谷郡矢板村	郡役所
二	仝　縣那須郡太田原町	仝
三	福島縣盤前郡平町	仝
四	仝　縣楢葉郡富岡村	仝
五	仝　縣宇多郡中村町	仝
六	仝　縣西白河郡白河町	仝
七	仝　縣東白川郡棚倉町	仝
八	仝　縣石川郡石川村	仝
九	仝　縣岩瀨郡須賀川町	仝
一〇	仝　縣安積郡郡山町	仝
一一	仝　縣田村郡三春町	仝
一二	仝　縣安達郡二本松町	仝
一三	仝　縣信夫郡渡利村(福島)	測候所
一四	仝　縣伊達郡桑折村	郡役所
一五	宮城縣伊具郡角田町	仝
一六	仝　縣柴田郡大河原町	仝

六	高知縣高知市	測候所
七	和歌山縣有田郡湯淺村大字湯淺	郡役所
八	仝 縣日高郡御坊村大字御坊	仝
九	仝 縣西牟婁郡田邊町	仝
一〇	仝 縣仝 郡潮岬	燈臺
一一	仝 縣東牟婁郡樫野崎(大島)	仝
一二	仝 縣仝 郡新宮町	郡役所
一三	三重縣南牟婁郡木ノ本町	仝
一四	仝 縣北牟婁郡尾鷲町	仝
一五	仝 縣答志郡安乘崎	燈臺
一六	仝 縣仝 郡菅島	仝
一七	仝 縣仝 郡鳥羽町	郡役所
一八	仝 縣度會郡宇治山田町	仝
一九	仝 縣多氣郡相可村	仝
二〇	仝 縣飯高郡松坂町	仝
二一	仝 縣一志郡久居町	仝
二二	仝 縣安濃郡新町	仝
二三	仝 縣津市	測候所
二四	仝 縣鈴鹿郡龜山町	郡役所
二五	仝 縣奄藝郡白子町	仝
二六	仝 縣三重郡四日市町	仝
二七	仝 縣仝 郡四日市	燈臺
二八	仝 縣員辨郡大泉原村大字楚原	郡役所
二九	仝 縣桑名郡桑名町	仝
三〇	愛知縣海東郡津島町	仝
三一	仝 縣葉栗郡大田島村	仝
三二	仝 縣丹羽郡小折村	仝
三三	岐阜縣下石津郡高須町	仝
三四	仝 縣多藝郡高田町	仝
三五	仝 縣不破郡垂井町	仝
三六	仝 縣安八郡大垣町	仝
三七	仝 縣大野郡揖斐町	仝
三八	仝 縣本巣郡北方町	仝
三九	仝 縣羽栗郡笠松町	仝
四〇	仝 縣岐阜市	測候所
四一	仝 縣山縣郡高富村	郡役所
四二	仝 縣武儀郡上有知町	仝
四三	仝 縣郡上郡八幡町	仝
四四	仝 縣加茂郡太田町	仝
四五	仝 縣可兒郡御嵩町	仝
四六	仝 縣惠那郡中津川町	仝
四七	愛知縣中島郡稻澤村	仝
四八	仝 縣西春日井郡枇杷島町	仝
四九	仝 縣名古屋市	測候所
五〇	仝 縣愛知郡熱田町	郡役所
五一	仝 縣東春日井郡勝川村	仝
五二	仝 縣知多郡豐濱村	村役場
五三	仝 縣仝 郡半田町	郡役所
五四	仝 縣碧海郡知立村	仝
五五	岐阜縣土岐郡土岐津町	仝
五六	愛知縣幡豆郡佐久島村(佐久島)	村役場

第二區　南海

第三區　東海

第四區　內海

第五區　日本海

第六區　津輕海峽

第七區　阿哥斯克海

蓋シ降水量ハ治水事業ト直接ノ關係ヲ有スルモノナレハ各大河ノ流域ニ從ヒテ觀測ヲ區別スルヲ至當トスト雖モ觀測所ノ數未タ充分ナラサルヲ以テ暫ク前記ノ七區ニ止メ觀測所ノ增加スルニ從ヒ漸次大河ノ流域ニ細別セントス今各流域內ノ觀測所所在地ヲ詳記スレハ左ノ如シ

九州ヨリ銚子ニ至ル南海

銚子ヨリ北海道根室ニ亘ル北東海

九州ノ北ヨリ北海道宗谷ニ亘ル日本海

大日本流域別明治廿四年中雨量觀測所一覽

番號	地名	觀測所
	第一區　西海	
一	長崎縣南松浦郡大瀨崎(福江島)	燈臺
二	仝　縣西彼杵郡伊王島	仝
三	仝　縣仝　郡蔭ノ尾島	仝
四	仝　縣長崎市	測候所
五	仝　縣南高來郡口ノ津	燈臺
六	佐賀縣佐賀市	測候所
七	熊本縣玉名郡高瀨町	郡役所
八	仝　縣菊池郡隈府町	仝
九	仝　縣飽田郡春日村	仝
一〇	仝　縣熊本市	測候所

番號	地名	觀測所
一一	仝　縣阿蘇郡宮地村	郡役所
一二	仝　縣上益城郡御船町	仝
一三	仝　縣天草郡町山口村(天草下島)	仝
一四	仝　縣八代郡八代町	仝
一五	仝　縣球摩郡人吉町	仝
	第二區　南海	
一	鹿兒島縣鹿兒島市	測候所
二	仝　縣大隅郡佐多岬	燈臺
三	宮崎縣那珂郡鞍崎(大島)	仝
四	仝　縣宮崎郡宮崎町	測候所
五	愛媛縣北宇和郡宇和島町	郡役所

明治二十四年全國雨量

氣象事業ノ必要ハ漸次世人ノ信認スル所トナリ雨雪量觀測ノ如キモ年ヲ追ヒテ其歩ヲ進メ明治二十四年中雨雪量ノ觀測ヲ本臺ニ報告スルモノ三百二十七ケ所ノ多キニ達シ之ヲ明治二十三年ニ比スルニ實ニ百二十五ケ所ノ增設ヲ見ルニ至レリ今各觀測所ノ種類ヲ識別スレハ左ノ如シ

測候所	四十四
縣廳	二
郡市役所	百八十四
村役場	五
警察署	一
鎮守府	一
燈臺	五十二
燈竿	二
農學校	一
小學校	一
私設觀測所	三十四
合計	三百二十七

本編ハ前掲觀測所其他朝鮮國仁川釜山元山及西比利亞浦潮等ノ報告ニ據リテ編纂シタルモノニシテ前年ノ報告ノ如ク第一表（第一頁ヨリ第五頁マテ）ハ毎月及全年ノ降水總量ヲ示シ第二表（第六頁ヨリ第十頁マテ）ハ一日中ノ最多量ヲ示シ第三表（第十一頁ヨリ第十五頁マテ）ハ雨天日數ヲ示ス又別ニ毎月及全年ノ總量ヲ地圖ニ記入シ各地降水量ノ多寡分布如何ヲ一目瞭然タラシム則チ第五十一圖ヨリ第五十四圖ニ至ルモノ是ナリ

表中觀測所ノ配列ハ前年々報ノ如ク行政區畫ニ由ラス左ノ流域ニ從ヒテ區別セリ

第一區　西海　九州ノ西海

二四	二一	八

即偏中ノ數ヲ折半シ正中不中ニ各一半ヲ加ヘ以テ正中百分比例七十四ヲ得

十一月　一日、五日、十日、十一日、十五日、十八日、廿四日、廿六日及卅日ニ暴風警報ヲ發ス而シテ該警報百五回中

正中	偏中	不中
八六	九	一〇

即偏中ノ數ヲ折半シ正中不中ニ各一半ヲ加ヘ以テ正中百分比例八十六ヲ得

十二月　一日、三日、四日、八日、十二日、十三日、十五日、十七日、二十日、三十日及三十一日ニ暴風警報ヲ發ス而シテ該警報百六十二回中

正中	偏中	不中
一二一	二九	一二

即偏中ノ數ヲ折半シ正中不中ニ各一半ヲ加ヘ以テ正中百分比例八十四ヲ得

正中	偏中	不中
九六	三〇	一五

即偏中ノ數ヲ折半シ正中不中ニ各一半ヲ加ヘ以テ正中百分比例七十九ヲ得

七月 三日、六日、十日、十八日及廿四日ニ暴風警報ヲ發ス而シテ該警報七十五回中

正中	偏中	不中
三二	一九	二四

即偏中ノ數ヲ折半シ正中不中ニ各一半ヲ加ヘ以テ正中百分比例五十六ヲ得

八月 一日、二日、三日、十日、十五日、十七日、二十一日及廿八日ニ暴風警報ヲ發ス而シテ該警報百二十九回中

正中	偏中	不中
九一	二一	一七

即偏中ノ數ヲ折半シ正中不中ニ各一半ヲ加ヘ以テ正中百分比例七十九ヲ得

九月 一日、四日、七日、八日、九日、十日、十二日、十三日、十五日、二十日、二十二日、二十五日、二十八日、二十九日及三十日ニ暴風警報ヲ發ス而シテ該警報二百三十八回中

正中	偏中	不中
一三一	三九	六八

即偏中ノ數ヲ折半シ正中不中ニ各一半ヲ加ヘ以テ正中百分比例六十三ヲ得

十月 八日、廿三日及廿六日ニ暴風警報ヲ發ス而シテ該警報三十四回中

正中	偏中	不中

一四二	五二	五二

即偏中ノ數ヲ折半シ正中不中ニ各一半ヲ加ヘ以テ正中百分比例六十八ヲ得

三月　警報　三日、四日、五日、六日、十日、十四日、十六日、十七日、二十一日、二十三日、二十六日、二十八日及三十日ニ暴風警報ヲ發ス而シテ該警報二百三十三回中

正中	偏中	不中
一七二	三八	二三

即偏中ノ數ヲ折半シ正中不中ニ各一半ヲ加ヘ以テ正中百分比例八十二ヲ得

四月　五日、六日、七日、十一日、十二日、十四日、十六日、十八日、二十三日、二十四日及二十七日ニ暴風警報ヲ發ス而シテ該警報百七十五回中

正中	偏中	不中
一二一	三二	二二

即偏中ノ數ヲ折半シ正中不中ニ各一半ヲ加ヘ以テ正中百分比例七十八ヲ得

五月　二日、四日、五日、六日、七日、八日、十日、十五日、二十五日及廿七日ニ風暴警報ヲ發ス而シテ該警報百四十五回中

正中	偏中	不中
九五	二五	二五

即偏中ノ數ヲ折半シ正中不中ニ各一半ヲ加ヘ以テ正中百分比例七十四ヲ得

六月　二日、三日、五日、十一日、十四日、十五日、二十四日及廿九日ニ暴風警報ヲ發ス而シテ該警報百四十一回中

十二月 全氣象區(一ヨリ七)ヘ發シタル天氣豫報ノ數ハ卅一回ニシテ即其百分比例ハ次ノ如シ

適否／氣象區	風 正中	風 偏中	風 不中	風 百分比例	天氣 正中	天氣 偏中	天氣 不中	天氣 百分比例
第一區	二四	四	三	八四	二六	〇	五	八四
第二區	二三	五	三	八二	二五	一	五	八二
第三區	二〇	八	三	七七	二五	二	四	八四
第四區	二二	九	〇	八五	二六	一	四	八五
第五區	二三	五	三	八二	二三	五	三	八二
第六區	二二	八	一	八四	二六	一	四	八五
第七區	二五	四	二	八七	二五	三	三	八五
平均	二三	六	二	八三	二五	二	四	八四
全國百分比例								八三

暴風警報適否

一月 一日、三日、四日、五日、七日、九日、十一日、十四日、十六日、十八日、十九日、二十日、二十二日、二十四日、二十六日及三十日ニ暴風警報ヲ發ス而シテ該警報三百十六回中

正中	偏中	不中
二一五	六一	四〇

即チ偏中ノ數ヲ折半シ正中不中ニ各一半ヲ加ヘ以テ正中百分比例七十八ヲ得

二月 二日、四日、五日、六日、九日、十一日、十三日、十四日、十五日、十七日、二十日、二十四日及廿七日ニ暴風警報ヲ發ス而シテ該警報二百四十六回中

正中　偏中　不中

十月　氣象區四ヨリ七ヘ發シタル天氣豫報ノ數ハ卅一回、一ヨリ三ヘ三十回ニシテ即其百分比例ハ次ノ如シ

氣象區＼適否	氣 正中	氣 偏中	氣 不中	氣 百分比例	天氣 正中	天氣 偏中	天氣 不中	天氣 百分比例
第一區	二二	一六	一	七〇	二四	二	四	八三
第二區	二一	八	一	八三	二四	三	三	八五
第三區	一四	一五	一	七二	二四	二	四	八三
第四區	一六	一三	二	七三	二五	四	二	八七
第五區	一五	一一	五	六六	二七	三	一	九二
第六區	二〇	一〇	一	八一	二九	一	一	九五
第七區	一九	八	四	七四	二四	二	五	八〇
平均	一七	一二	二	七四	二五	二	三	八六
全國百分比例								八〇

十一月　全氣象區（一ヨリ七）ヘ發シタル天氣豫報ノ數ハ三十回ニシテ即其百分比例ハ次ノ如シ

氣象區＼適否	風 正中	風 偏中	風 不中	風 百分比例	天氣 正中	天氣 偏中	天氣 不中	天氣 百分比例
第一區	二六	二	二	九〇	二三	二	五	八〇
第二區	二二	六	二	八三	二三	三	四	八二
第三區	二三	五	二	八五	二〇	三	七	七二
第四區	二三	四	三	八三	二三	二	五	八〇
第五區	一七	一一	二	七五	二六	二	二	九〇
第六區	二二	四	四	八〇	二二	三	五	七八
第七區	二三	五	二	八五	一八	七	五	七二
平均	二二	五	二	八三	二二	三	五	七九
全國百分比例								八一

八月 氣象區一ヨリ三ヘ發シタル天氣豫報ノ數ハ二十九回、四ヨリ七ヘ發シタルハ卅一回ニシテ即其百分比例ハ次ノ如シ

氣象區＼適否	風 正中	風 偏中	風 不中	風 百分比例	天氣 正中	天氣 偏中	天氣 不中	天氣 百分比例
第一區	一九	八	二	七九	二〇	三	六	七四
第二區	一九	七	三	七八	二一	二	六	七六
第三區	一七	八	四	七二	二一	三	五	七八
第四區	一九	一〇	二	七七	二五	三	三	八五
第五區	二三	八	〇	八七	二三	六	二	八四
第六區	二〇	七	四	七六	二四	五	二	八五
第七區	二〇	七	四	七六	一八	八	五	七一
平均	二〇	八	三	七八	二三	四	四	七九
全國百分比例								七八

九月 氣象區四ヘ發シタル天氣豫報ノ數ハ三十回、一、二、三、五及發六ヘシタルハ二十九回、七ヘ二十八回ニシテ即其百分比例ハ次ノ如シ

氣象區＼適否	風 正中	風 偏中	風 不中	風 百分比例	天氣 正中	天氣 偏中	天氣 不中	天氣 百分比例
第一區	一四	一二	三	六九	一九	五	五	七四
第二區	一六	一一	二	七四	二〇	五	四	七八
第三區	一四	一二	三	六九	二二	三	五	八一
第四區	一七	一〇	三	七三	二三	四	三	八三
第五區	一九	七	三	七八	二四	二	三	八六
第六區	二〇	九	〇	八四	二二	四	三	八三
第七區	一九	七	二	七八	一九	三	六	七三
平均	一七	一〇	二	七五	二一	四	四	八〇
全國百分比例								七七

六月 氣象區第一ヨリ第三ヘ發シタル天氣豫報ノ數ハ二十八回第四ヨリ第七ヘ發シタルハ三十回ニシテ即其百分比例ハ次ノ如シ

適否 ＼ 氣象區	風 正中	風 偏中	風 不中	風 百分比例	天氣 正中	天氣 偏中	天氣 不中	天氣 百分比例
第一區	一九	七	二	八〇	二三	二	三	八六
第二區	一九	六	三	七九	二二	二	四	八三
第三區	一八	九	一	八〇	二二	四	二	八六
第四區	二四	四	二	八七	二六	一	三	八八
第五區	二一	五	四	七八	二三	四	三	八三
第六區	二〇	七	三	七八	二二	六	二	八三
第七區	二三	四	三	八三	二〇	七	三	七八
平均	二一	六	三	八一	二三	四	三	八四
全國百分比例								八二

七月 全氣象區(一ヨリ七)ヘ發シタル天氣豫報ノ數ハ三十回ニシテ其百分比例ハ次ノ如シ

適否 ＼ 氣象區	風 正中	風 偏中	風 不中	風 百分比例	天氣 正中	天氣 偏中	天氣 不中	天氣 百分比例
第一區	二五	五	[illegible]	八九	一六	一一	四	六九
第二區	二三	七	一	八五	一六	九	六	六六
第三區	二三	七	一	八五	一五	六	一〇	五八
第四區	二五	五	[illegible]	八九	一七	一二	二	七四
第五區	二〇	一一	〇	八二	一六	七	八	六三
第六區	一八	一一	二	七六	二一	八	二	八一
第七區	一六	八	七	六四	一九	一一	一	七九
平均	二一	八	二	八一	一七	九	五	七〇
全國百分比例								七五

四月 全氣象區（一ヨリ七）ヘ發シタル天氣豫報ノ數ハ三十回ニシテ其百分比例ハ次ノ如シ

氣象區＼適否	風 正中	風 偏中	風 不中	風 百分比例	天氣 正中	天氣 偏中	天氣 不中	天氣 百分比例
第一區	一九	六	五	七三	二〇	八	二	八〇
第二區	二一	七	二	八二	二三	五	二	八五
第三區	二二	四	四	八〇	二三	六	二	八三
第四區	二一	四	五	七七	一九	六	五	七三
第五區	一九	六	五	七三	二〇	三	七	七二
第六區	一七	一〇	三	七三	一七	六	七	六七
第七區	二二	四	四	八〇	二一	六	三	八〇
平均	二〇	六	四	七七	二〇	六	四	七七
全國百分比例								七七

五月 氣象區第一ヨリ第三ヘ發シタル天氣豫報ノ數ハ廿八回第四ヨリ第七ヘ發シタルハ三十一回ニシテ其百分比例ハ次ノ如シ

氣象區＼適否	風 正中	風 偏中	風 不中	風 百分比例	天氣 正中	天氣 偏中	天氣 不中	天氣 百分比例
第一區	二三	三	三	八四	二三	二	三	八六
第二區	一八	六	四	七五	二五	三	〇	九五
第三區	一八	七	三	七七	二四	一	三	八七
第四區	二二	六	三	八一	二五	四	二	八七
第五區	一九	七	五	七三	二五	五	一	八九
第六區	二〇	八	三	七七	二六	三	二	八九
第七區	二〇	四	七	七一	二三	七	二	八二
平均	二〇	六	四	七七	二四	四	二	八八
全國百分比例								八一

二

氣象區＼適否	風 正中	風 偏中	風 不中	風 百分比例	天氣 正中	天氣 偏中	天氣 不中	天氣 百分比例
第一區	二〇	三	四	八〇	二一	二	四	八一
第二區	二〇	四	三	八一	二〇	三	四	八〇
第三區	二二	四	一	八九	一七	六	四	七四
第四區	二三	四	一	八九	一八	六	四	七五
第五區	一六	六	六	六八	二一	四	三	八二
第六區	二一	三	四	八〇	二一	三	四	八〇
第七區	二〇	四	四	七九	二五	二	一	九三
平均	二〇	四	三	八一	二〇	四	三	八一
全國百分比例								八一

三月 氣象區第一ヨリ第三ヘ發シタル天氣豫報ノ數ハ廿七回、第七區ヘ廿八回、第五區ヘ三十回、第四及第六區ヘ三十一回ニシテ其百分比例ハ次ノ如シ

氣象區＼適否	風 正中	風 偏中	風 不中	風 百分比例	天氣 正中	天氣 偏中	天氣 不中	天氣 百分比例
第一區	二二	三	二	八七	二四	二	一	九三
第二區	二三	三	一	九一	二三	二	二	八九
第三區	二四	二	一	九三	二五	〇	二	九三
第四區	一九	八	四	七四	二四	五	二	八五
第五區	二二	二	六	七七	二二	五	三	八二
第六區	二四	三	四	八二	二四	三	四	八二
第七區	二〇	二	六	七五	二二	四	二	八六
平均	二二	三	三	八三	二三	三	二	八七
全國百分比例								八五

明治二十四年天氣豫報及暴風警報ノ適否

本臺ニ於テハ毎日午後十時ヨリ翌日午後十時ニ至ル二十四時間ノ天氣豫報ヲ各區毎ニ調製シテ之ヲ發布ス之カ適否ハ日刊ノ三回天氣圖ニ示セル實況ニ照シテ調査ス

暴風警報ハ有効時限ヲ四十八時間トシ警戒地若クハ其近傍百粁ノ周圍ニ風力四(風力ハ零ヨリ六ニ至ル配法ヲ用フ)以上ニ達スルヲ正中ト爲ス

天氣豫報ノ適否

一月 本月中天氣豫報ヲ發シタル數ハ第一區及第二區ニ二十八回第三區及第七區ニ二十九回第四ヨリ第六區ニ三十一回ニシテ其適否百分比例ヲ記スレハ左ノ如シ

適否 / 氣象區	風 正中	風 偏中	風 不中	風 百分比例	天氣 正中	天氣 偏中	天氣 不中	天氣 百分比例
第一區	二二	四	二	八六	二一	四	三	七九
第二區	二三	五	〇	九一	二二	三	三	八四
第三區	二五	三	一	九二	二三	二	四	八三
第四區	二八	一	二	九二	二三	六	二	八四
第五區	二五	二	四	八四	二七	二	二	九〇
第六區	二六	三	二	八九	二四	一	六	七九
第七區	二二	四	四	七七	二七	一	二	八九
平均	二四	三	二	八七	二四	三	三	八四
全國百分比例								八五

二月 氣象區第一ヨリ第三ヘ發シタル天氣豫報ノ數ハ二十七回第四ヨリ第七ヘ二十八回ニシテ其百分比例ハ次ノ如シ

二十七日二、二十八日五、二十九日四、三十日六、三十一日一

十八

合計　八六

十一月 強風ノ數ハ百五十一回ニシテ即總觀測數ノ百分比例ハ三、九ナリ又之ヲ各方位ニ從テ列記スレハ次ノ如シ

風位	北東	東	南東	南	南西	西	北西	北	總計
觀測數	一	〇	一	一三	一〇	四六	六四	一六	一五一
百分比例	一	〇	一	八	七	三〇	四二	一一	一〇〇

強風ノ日及數　一日七、二日五、四日三、五日八、六日七、七日一、八日一、九日二、十日二、十一日三、十二日二、十三日三、十四日二、十五日二、十六日四、十七日一、十八日七、十九日一八、二十日八、二十一日七、二十三日二、二十四日一五、二十五日一二、二十六日一六、二十七日九、二十八日三、二十九日一

合計　一五一

十二月 強風ノ數ハ二百十六回ニシテ即總觀測數ノ百分比例ハ五、四ナリ又之ヲ各方位ニ從テ列記スレハ次ノ如シ

風位	北東	東	南東	南	南西	西	北西	北	總計
觀測數	二	六	四	二九	一五	九三	六二	五	二一六
百分比例	一	三	二	一三	七	四三	二九	二	一〇〇

強風ノ日及數　一日一六、二日三、三日一、四日二九、五日一五、六日六、七日五、八日九、九日八、十日五、十一日四、十二日二、十三日七、十四日四、十五日六、十六日六、十七日一四、十八日一六、十九日二、二十日四、二十一日七、二十二日二、二十三日七、二十四日二、二十七日二、二十八日一、三十日四、三十一日二九

合計

風位	北東	東	南東	南	南西	西	北西	北	總計
觀測數	三	八	一一	四九	一七	七	二	三	一〇〇
百分比例	三	八	一一	四九	一七	七	二	三	一〇〇

強風ノ日及數　一日三、二日四、三日一四、四日一二、五日三、九日三、十四日三、十五日一、十六日一七、十七日一三、十八日六、十九日六、二十日四、二十一日三、二十二日二、二十八日二、二十九日一、三十一日三

合計　一〇〇

九月　強風ノ數ハ百十七回ニシテ即總觀測數ノ百分比例ハ三、〇ナリ又之ヲ各方位ニ從テ列記スレハ次ノ如シ

風位	北東	東	南東	南	南西	西	北西	北	總計
觀測數	八	一三	九	四四	一五	一〇	八	一〇	一一七
百分比例	七	一一	八	三八	一三	八	七	八	一〇〇

強風ノ日及數　一日二、二日一、四日二、五日七、六日一、九日一、十日六、十一日三、十二日一、十三日七、十四日四五、十五日一七、十八日一、二十一日三、二十三日三、二十七日三、三十日一四

合計　一一七

十月　強風ノ數ハ八十六回ニシテ即總觀測數ノ百分比例ハ二、二ナリ又之ヲ各方位ニ從テ列記スレハ次ノ如シ

風位	北東	東	南東	南	南西	西	北西	北	總計
觀測數	四	一	三	一二	一	一八	三二	一五	八六
百分比例	五	一	四	一四	一	二一	三七	一七	一〇〇

強風ノ日及數　一日三、二日一、三日一、四日一、六日一、七日三、八日四、九日一四、十日四、十一日三、十二日二、十五日三、十六日六、十七日三、二十日一、二十一日一、二十二日四、二十三日三、二十四日四、二十五日二、二十六日四、

六月 强風ノ數ハ百二十二回ニシテ即總觀測數ノ百分比例ハ三、二一ナリ又之ヲ各方位ニ從テ列記スレハ次ノ如シ

風位	北東	東	南東	南	南西	西	北西	北	總計
觀測數	六	一五	一四	六四	七	一〇	四	二	一二二
百分比例	五	一二	一二	五二	六	三	三	二	一〇〇

强風ノ日及數　一日二、二日四、三日二、四日七、五日九、六日五、七日三、八日二、十日一、十一日三、十四日三、十五日一二、十六日一二、十七日四、十八日四、十九日三、二十日三、廿一日五、廿二日四、二十三日三、二十四日七、二十五日五、二十六日四、二十七日二、二十八日一、三十日三

合計　一二二

七月 强風ノ數ハ七十回ニシテ即總觀測數ノ百分比例ハ一、八ナリ又之ヲ各方位ニ從テ列記スレハ次ノ如シ

風位	北東	東	南東	南	南西	西	北西	北	總計
觀測數	一	一	三	四七	五	三	六	四	七〇
百分比例	一	一	四	六七	七	四	九	六	九九

强風ノ日及數　一日五、二日四、三日四、四日四、七日一、八日四、九日三、十日三、十一日九、十二日二、十六日一、十八日一、十九日五、二十日一、二十一日五、二十二日一、二十四日四、二十五日二、二十六日二、二十七日三、二十九日一、三十日二、三十一日三

合計　七〇

八月 强風ノ數ハ百回ニシテ即總觀測數ノ百分比例ハ二、五ナリ又之ヲ各方位ニ從テ列記スレハ次ノ如シ

強風ノ日及數　一日七、二日二、三日二、四日四、六日八、七日七、八日一、十日三、十一日一二、十二日二〇、十三日二、十四日三、十五日四、十六日五、十七日一八、十八日一五、十九日三、二十一日六、二十二日三、二十三日一九、二十四日三、二十六日五、二十七日一、二十八日三、二十九日一二、三十日五、三十一日七　合計　一九五

四月　強風ノ數ハ百六十七回ニシテ即總觀測數ノ百分比例ハ四、四ナリ又之ヲ各方位ニ從テ列記スレハ次ノ如シ

風位	北東	東	南東	南	南西	西	北西	北	總計
觀測數	七	一三	七	四一	一五	二四	二六	三四	一六七
百分比例	四	八	四	二五	九	一四	一六	二〇	一〇〇

強風ノ日及數　一日二、二日一、三日一、四日二、五日八、六日八、七日八、九日四、十日四、十一日四、十二日五、十三日一、十四日一六、十五日一四、十六日九、十七日六、十八日三、十九日五、二十日二、二十一日一、二十二日六、二十三日一〇、二十四日二八、二十五日七、二十六日二、二十七日四、二十八日三、三十日六　合計　一六七

五月　強風ノ數ハ百七十七回ニシテ即總觀測數ノ百分比例ハ四、三ナリ又之ヲ各方位ニ從テ列記スレハ次ノ如シ

風位	北東	東	南東	南	南西	西	北西	北	總計
觀測數	〇	二	七	六八	五一	二一	二〇	八	一七七
百分比例	〇	一	四	三九	二九	一〇	一二	五	一〇〇

強風ノ日及數　一日四、二日四、三日五、四日三、五日三四、六日一五、七日六、八日七、九日三、十日四、十一日一、十二日一、十三日五、十四日二、十五日六、十六日二〇、十七日六、十八日九、十九日七、二十日七、二十一日四、二十二日三、二十四日五、廿五日三、廿七日二、二十八日七、二十九日三、三十日一　合計　一七七

風位	北東	東	南東	南	南西	西	北西	北	總計
觀測數	八	二	〇	五	一一	七七	一二九	二八	二六〇
百分比例	三	一	〇	二	四	二九	五〇	一一	一〇〇

強風ノ日及數　一日一三、二日一三、三日二、四日一、五日一二、六日一四、七日四、八日二、九日二〇、十日一七、十一日八、十二日七、十三日二、十四日七、十五日一三、十六日六、十七日九、十八日六、十九日八、二十日四、二十一日六、二十二日二、二十三日一二、二十四日一八、二十五日一四、二十六日一四、二十七日五、二十八日四、二十九日三、三十日八、三十一日六、

合計　二六〇

二月　強風ノ數ハ百十五回ニシテ即總觀測數ノ百分比例ハ三、三ナリ又之ヲ各方位ニ従テ列記スレハ次ノ如シ

風位	北東	東	南東	南	南西	西	北西	北	總計
觀測數	一〇	一	〇	五	六	二七	三七	二九	一一五
百分比例	九	一	〇	四	五	二四	三二	二五	一〇〇

強風ノ日及數　一日二、二日三、四日二、五日四、六日一〇、七日五、九日五、十日一五、十一日一四、十二日三、十三日一、十四日六、十五日三、十六日七、十七日六、十八日六、十九日三、二十日二、二十二日三、二十四日七、二十五日一、二十七日四、二十八日三

合計　一一五

三月　強風ノ數ハ百九十五回ニシテ即總觀測數ノ百分比例ハ五、〇又之ヲ各方位ニ従テ列記スレハ次ノ如シ

風位	北東	東	南東	南	南西	西	北西	北	總計
觀測數	七	九	八	四二	二一	五七	二六	二五	一九五
百分比例	四	五	四	二一	一一	二九	一三	一三	一〇〇

ニ於テ消失セリ　最高氣壓　七百六十九粍

第三　十一日朝鮮ノ南部ヨリ來リ十二日日本海及本州ノ北部ヲ經テ十三日北海道ニ於テ消失セリ　最高氣壓　七百六十八粍

第四　十四、十五ノ兩日朝鮮ノ南部及日本海ノ南部ニ滯留セリ　最高氣壓　七百六十九粍

第五　十九日極西部ヨリ來リ二十日日本海ノ南部ヲ經過シ二十一日ヨリ二十三日ニ至ル間本州ノ北部及北海道ヲ通過セリ　最高氣壓　七百七十粍

第六　廿四日ヨリ廿九日ニ至ル間朝鮮ノ南部ニ滯留シ三十日本邦ノ西部ニ於テ消失セリ　最高氣壓　七百七十八粍

十二月　本月中高氣壓ノ部位ハ五回現出セリ

第一　一日朝鮮ノ南部ニ、二日及三日本州ノ北部ニアリ　最高氣壓　七百七十四粍

第二　六日朝鮮ノ南部ニ殆ント依然タリシカ七日本州ノ北部ヲ踰過シ八日北海道ノ南東部ニマテ北上セリ　最高氣壓　七月七十六粍

第三　十六日ヨリ十八日ニ至ル間朝鮮ノ南部ニ、十九、二十ノ兩日本州ニ滯留セリ　最高氣壓　七百七十四粍

第四　第三ニ次テ直ニ朝鮮ノ中部ニ現出シ二十一日本州ノ北部ヲ橫斷セリ　最高氣壓　七百七十一粍

第五　廿三日ヨリ廿八日ニ至ル間極西部ニ、廿九、三十ノ兩日中部ニ滯留セリ　最高氣壓　七百七十六粍

強風觀測

一月　強風ノ數ハ二百六十回ニシテ即總觀測數ノ百分比例ハ七、〇ナリ又之ヲ各方位ニ從テ列記スレハ次ノ如シ

最高氣壓　七百六十四粍

第四　二十四日ヨリ廿六日ニ至ル間朝鮮ノ南部ニ滯留シ二十七日本州ノ北部ヲ横斷シテ廿八日太平洋ヲ東方ニ進行セリ　　最高氣壓　七百六十五粍

九月　本月中高氣壓ノ部位ハ三回現出セリ

第一　二日朝鮮及日本海ニ現出シヲ三日本州ノ北部ヲ横斷シ四日東ノ方太平洋ニ進行セリ　　最高氣壓　七百六十五粍

第二　十九日日本海ノ北部ニ在リシカ二十日北海道ヲ横斷セリ　　最高氣壓　七百七十一粍

第三　廿四日朝鮮ニ、廿五日日本海ノ南部ニ、廿六日本州ノ北部ニ、廿七日東海岸ノ沖合ニアリ　　最高氣壓　七百六十九粍

十月　本月中高氣壓ノ部位ハ五回現出セリ

第一　朝鮮ニ現出シテ三日ヨリ六日ニ至ル間日本海及本州ノ北部ヲ横斷セリ　　最高氣壓　七百六十八粍

第二　十二日ヨリ十四日ニ至ル間第一ト平行セリ　　最高氣壓　七百六十八粍

第三　十六日朝鮮ノ南部ニ在リシカ十七、十八ノ兩日中部ニ滯留シ其進路ヲ南西方ニ轉シ消失セリ　　最高氣壓　七百七十一粍

第四　廿四日ヨリ廿七日ニ至ル間第三ト同樣ニ進行セリ　　最高氣壓　七百六十七粍

第五　三十日朝鮮ノ南部ニアリシカ三十一日本邦ノ中部ニアリテ消失セリ　　最高氣壓　七百六十八粍

十一月　本月中高氣壓ノ部位ハ六回現出セリ

第一　朝鮮ノ南部ヨリ來リ三、四ノ兩日日本海及本州ノ中部ヲ横斷シ五日北東ノ方根室ノ近傍ニ進行セリ　　最高氣壓　七百六十七粍

第二　極西部ヨリ來リ七日全西海岸ニ沿フテ進行シ本州ノ北部ヲ經過シ八日其進路ヲ逆轉シ九日南部

セリ　　最高氣壓　七百七十一粍

第五　廿七日朝鮮ノ中部ニアリシカ廿八、廿九ノ兩日日本海及本州ノ北部ヲ横斷シ三十日阿哥斯克海ニ入リ消失セリ　　最高氣壓　七百六十八粍

五月　本月中高氣壓ノ部位ハ四回現出セリ

第一　西部ヨリ來リ一、二ノ兩日南部ヲ經過シ三日北東ノ方太平洋ニ進行セリ　　最高氣壓　**七百六十八粍**

第二　六日極西部ヨリ來リ七、八ノ兩日中部ヲ横斷シ東方ニ進行セリ　　最高氣壓　七百六十五粍

第三　十八日ヨリ廿一日ニ至ル間西部ニ滯留シ廿一日中部ヲ横斷シ同日南海岸ニ於テ消失セリ　　最高氣壓　七百六十二粍

第四　三十日ヨリ六月二日迄第二ト殆ント平行セリ　　最高氣壓　七百六十六粍

六月　本月中高氣壓ノ部位ハ只一回現出セリ

西部ヨリ來リ二十六日ヨリ三十日ニ至ル間南、南東及東海岸ニ沿フテ經過セリ　　最高氣壓　七百六十二粍

七月　本月中高氣壓ノ部位ノ著明ナルモノハ只一回ナリ

十一日ヨリ十九日ニ至ル間南海岸ニ殆ント依然トシテ滯留セリ　　最高氣壓　七百六十一粍

八月　本月中高氣壓ノ部位ハ四回現出セリ

第一　一日ヨリ三日ニ至ル間南東及東海岸ノ沖合ニ滯留セリ　　最高氣壓　七百六十二粍

第二　朝鮮ノ北部ニ現出シ四日日本海ノ南部ヲ經テ五日本州ノ北部ヲ横斷シ六日太平洋ニ進出セリ　　最高氣壓　七百六十三粍

第三　朝鮮ノ南部近傍ニ發生シ二十、二十一ノ兩日日本海及本州ノ北部ヲ踰過シ北海道ノ東端ニ至レリ

第一　二日朝鮮海峽ノ近傍ニアリシカ三日ヨリ六日ニ至ル間本州ノ北部及ヒ北海道ヲ經過セリ　最高氣壓　七百七十五粍

第二　七日ヨリ十三日ニ至ル間朝鮮ノ南部或ハ其近傍ニアリ　最高氣壓　七百七十五粍

第三　十八、十九ノ兩日朝鮮ノ南部ニ、二十、二十一ノ兩日中部ニアリタリ　最高氣壓　七百七十五粍

三月　本月中高氣壓ノ部位ハ五回現出セリ

第一　朝鮮ノ南部ニアリシカ二日日本海ヲ過キ本州ノ北部ヲ横斷シテ三日北海道ノ極北東部ニ進行セリ　最高氣壓　七百七十五粍

第二　五日朝鮮ノ中部ニアリシカ六、七ノ兩日日本海ノ北部ニ至リ八日本州ノ北部ヲ横斷シテ九、十ノ兩日北海道ノ東部ヲ通過セリ　最高氣壓　七百七十粍

第三　十四、十五ノ兩日朝鮮ノ南部近傍ニアリシカ十六、十七ノ兩日第一ト同樣ナル進路ヲ取レリ　最高氣壓　七百七十二粍

第四　十八日極西部ニアリシカ十九日日本海ヲ經過シ廿日本州ノ北部ヲ横斷セリ　最高氣壓　七百七十二粍

第五　廿四日朝鮮海峽ニ、廿五日中部ニアリ　最高氣壓　七百七十粍

四月　本月中高氣壓ノ部位ハ五回現出セリ

第一　二日朝鮮ニ、三日日本海ノ南部ニ、四日本州ノ北部ニアリシカ五日太平洋ニ進出セリ　最高氣壓　七百七十三粍

第二　十四日日本海ニ現出シ十五日北海道ヲ經過セリ　最高氣壓　七百七十一粍

第三　十九日日本海ニ在リシカ二十日ヨリ二十三日ニ至ル間中部ニ滯留セリ　最高氣壓　七百七十粍

第四　廿四日朝鮮ニ現出シ二十五日日本海ヲ經過シ夫ヨリ本州ノ中部ヲ横斷シテ東ノ方太平洋ニ進行

十二月 本月中低氣壓ノ部位ハ五回經過セリ

第一 支那東海ヨリ來リ朝鮮海峽ヲ通過シ三日日本海ヲ北上シテ四日南東部ヨリ北行セル一部位ト本州ノ北部ニ於テ會合シ夫ヨリ北海道ノ南東部ニ沿フテ北東方ニ進行セリ　最低氣壓　**七百四十粍**

第二 支那東海ヨリ來リ八日日本海ノ南部ヲ經過シ九日本州ノ北部ヲ横斷シ東方ニ進行セリ　最低氣壓　七百五十粍

第三 十二日西方ヨリ來リ浦潮港ノ近傍ヲ通過シ十三日日本海ノ北部及北海道ノ北部ヲ横斷シ北東ノ方阿哥斯克海ニ進入セリ　最低氣壓　七百五十二粍

第四 十五日ヨリ十八日ニ至ル間第三ト殆ント平行セリ　最低氣壓　七百五十二粍

第五 日本海ノ北部ヨリ來リ三十一日北海道ヲ横斷セリ　最低氣壓　七百四十八粍

高氣壓ノ部位

一月 本月中高氣壓ノ部位ハ五回現出セリ

第一 一日及二日朝鮮海峽ニ滯留シ二日四國ニ消失セリ　最高氣壓　七百七十二粍

第二 本州ノ中部ニ現出シ四日消失セリ　最高氣壓　七百六十七粍

第三 西部ヨリ來リ廿二日本州ノ中部ニ進入シ同日消失セリ　最高氣壓　七百六十八粍

第四 廿六日朝鮮ニ在リシカ廿七日能登近傍ニ、廿八、廿九ノ兩日北海道ノ北部ニアリテ北東方ニ進行セリ　最高氣壓　七百七十三粍

第五 北西海岸ニ發生シ二十九、三十ノ兩日同所ニ滯留シ三十一日壽都ノ沖合ニアリテ北東方ニ進行セリ　最高氣壓　**七百七十六粍**

二月 本月中高氣壓ノ部位ハ三回現出セリ

第六　又日本海ノ北部ニ生形シ二十六日北海道ノ北部ヲ蹤過シ阿哥斯克海ニ入リ消失セリ

最低氣壓　七百五十粍

第七　廿七日支那東海ヨリ來リ二十八日全南海岸ニ沿フテ進行シ二十九日東海岸ノ沖合ヲ北上シ太平洋中北東方ニ進行セリ

最低氣壓　七百四十九粍

十一月　本月中低氣壓ノ部位ハ八回經過セリ

第一　日本海ノ北部ニ發生シ一日北海道ノ北部ヲ横斷シテ阿哥斯克海ニ入リ消失セリ

最低氣壓　七百五十一粍

第二　西方ヨリ來リ浦潮港ノ南方ヲ過キ四日日本海ノ北部ヲ横斷シ五日北海道ノ北部ヲ蹤過シ又阿哥斯克海ニ入リ消失セリ

最低氣壓　七百四十五粍

第三　西伯利亞ヨリ來リ九日北海道ノ北部ヲ横斷シ東ノ方根室ノ北方ニ進行セリ

最低氣壓　七百五十五粍

第四　支那東海ヨリ來リ十日九州ノ北西部、本州ノ西部及能登ヲ、十一日本州ノ北部ヲ蹤過シテ北東ノ方太平洋ニ進行セリ

最低氣壓　七百五十一粍

第五　支那東海ヨリ來リ十二、十三ノ兩日全南海岸ノ沖合ヲ經テ北東方ニ進行セリ

最低氣壓　七百六十一粍

第六　日本海ノ北部ニ發生シ十八日北海道ノ北部ヲ横斷シ東方ニ進行セリ

最低氣壓　七百四十七粍

第七　南西部ヨリ來リ廿三日南海岸ノ遙ナル沖合ヲ進行シ本州ノ極南東部近傍ヲ經テ廿四日根室ノ東方ニ北上シ廿五、廿六ノ兩日該所ニ滯留セリ

最低氣壓　七百四十九粍

第八　十一月三十日及十二月一日ノ兩日殆ント第四ト平行セリ

最低氣壓　七百五十二粍

第三　六日浦潮港ノ西部ヨリ來リ日本海ノ北部及北海道ノ北部ヲ横斷シ七日阿哥斯克海ニ進行セリ
最低氣壓　七百五十三粍

第四　支那東海ヨリ來リ八日朝鮮海峽ヲ通過シ日本海ヲ進行シテ九日本州ノ北部ヲ横斷セリ
最低氣壓　七百五十三粍

第五　九日支那東海ヨリ來リ朝鮮ノ南部ヲ經テ十日日本海ヲ通過セリ
最低氣壓　七百四十三粍

第六　十二日緯度廿六度以下沖繩ノ南東方太平洋中ヨリ來リ十三日大島ノ北部ヲ、十四日九州ノ西部ヲ經仝日日本海ヲ通過シ十五日北海道ノ北部及阿哥斯克海ノ南部ヲ横斷シ夫ヨリ北東ノ方千島ノ北部ニ進行シベルリング海ニ於テ消失セリ
最低氣壓　七百十五粍

第七　二十一日支那東海ヨリ來リ九州ノ北部、內海及本州ノ中部ヲ横斷シ廿二日本州ノ南東部ニ於テ消失シタルモノヽ如シ
最低氣壓　七百五十四粍

第八　日本海ノ北部ニ發生シ津輕海峽ヲ横斷シテ廿八日太平洋中東方ニ進行セリ
最低氣壓　七百五十七粍

第九　廿九日太平洋ヨリ來リ三十日先ツ紀伊半島ニ到リ本州ノ南東部ヲ通過シ同日太平洋ニ經過セリ
最低氣壓　七百三十八粍

十月　本月中低氣壓ノ部位ハ七回經過セリ

第一甲　西部ヨリ來リ八日日本海ノ北部及北海道ノ北部ヲ横斷シテ阿哥斯克海ニ入リ消失セリ
最低氣壓　七百四十九粍

第一乙　八日全東海岸ニ沿フテ北上シ北東方ニ進行セリ
最低氣壓　七百四十一粍

第二　十五日北西部ヨリ來リ北海道ノ東部ヲ通過シ南東ノ方太平洋ニ進行セリ
最低氣壓　七百五十七粍

第三　日本海ノ北部ヨリ來リ十八日北海道ノ北東部ヲ横斷セリ
最低氣壓　七百五十五粍

第四　二十、二十一ノ兩日第三ト殆ント同樣ニ進行セリ
最低氣壓　七百五十六粍

第五　日本海ノ北部ニ發生シ廿三日北海道ノ北部ヲ横斷シ東方ニ進行セリ

日北海道ノ南東部ニ於テ消失セリ　最低氣壓　七百五十五粍

第九　西部ヨリ來リ浦潮港ノ北部ヲ經テ二十四、二十五ノ兩日第四ト殆ント平行ニ進行セリ　最低氣壓　七百四十七粍

第十　日本海ノ北部ニ發生シ二十八日北海道ヲ踰過シ二十九日太平洋中東方ニ進行セリ　最低氣壓　七百五十粍

八月　本月中低氣壓ノ部位ハ六回經過セリ

第一　二日支那東海ヨリ來リ三、四ノ兩日朝鮮海峽及ヒ日本海ヲ通過シ阿哥斯克海ニ入リ消失シタルモノヽ如シ　最低氣壓　七百四十一粍(浦潮港)

第二　西部ヨリ浦潮港ノ北方ヲ、十日日本海ノ北部ヲ、十一日北海道ノ北部ヲ經過シテ太平洋ノ方東方ニ進行セリ　最低氣壓　七百五十粍

第三　太平洋ヨリ來リ十日四國ノ東部及ヒ本州ノ西部ヲ通過シ日本海ニ入リ十七日本州ノ北部ヲ踰過シ北東方ニ進行セリ　最低氣壓　七百三十六粍

第四　日本海ノ北部ニ發生シ十八、十九ノ兩日北海道ヲ横斷シ太平洋中東方ニ進行セリ　最低氣壓　七百五十粍

第五　西海岸ニ沿フテ進行シ二十一日本州中部ヲ南東海岸迄經過シ廿二日其近傍ニ於テ消失セリ　最低氣壓　七百五十四粍

第六　浦潮港ノ南部ヨリ來リ二十八、二十九ノ兩日第二ト殆ント平行ニ進行セリ　最低氣壓　七百五十五粍

九月　本月中低氣壓ノ部位ハ九回經過セリ

第一　一日西部ヨリ來リ日本海ノ北部及ヒ北海道ノ北部ヲ横斷シ太平洋中東方ニ進行セリ　最低氣壓　七百五十四粍

第二　五日日本海ノ北部及ヒ北海道ノ中部ヲ横斷シ南東ノ方太平洋ニ進行セリ　最低氣壓　七百四十五粍

第二　支那海岸ヨリ來リ十五日朝鮮海峽ニ於テ二支ニ分離シ其一支ハ十六、十七ノ兩日西海岸ニ沿フテ日本海ヲ通過シ他ノ一支ハ十五日本州ノ西部及ヒ四國ヲ横斷シ十六日太平洋ニ進行シ十八日日本海ニ於テ前支ト會合シ本州ノ中部ヲ經過セリ
最低氣壓　七百四十七粍

第三　九州南西部ノ沖合ニ發生シ廿日四國ヲ横斷シ二十二日太平洋中東方ニ進行セリ
最低氣壓　七百五十一粍

第四　朝鮮ノ中部ヨリ廿四日日本海ノ南部ヲ經テ二十五日西及ヒ北西海岸ニ沿フテ進行シ阿哥斯克海ニ進出セリ
最低氣壓　七百四十六粍

第五甲　西部ヨリ來リ三十日朝鮮ノ東海岸ニ沿フテ北方ニ進行セリ
最低氣壓　七百五十六粍

第五乙　西部ヨリ來リ九州ノ北部ヲ横斷シ三十日日本海ノ南部ニ於テ消失セリ
最低氣壓　七百五十四粍

七月　本月中低氣壓ノ部位ハ十回經過セリ

第一　支那東海ヨリ來リ二、三ノ兩日朝鮮海峽ヲ通過シ三、四ノ兩日日本海中北方ニ進行セリ
最低氣壓　七百五十一粍

第二　四日又支那東海ヨリ來リ四、五ノ兩日殆ント日本ノ全部ヲ通過シ北海道ニ於テ消失セリ
最低氣壓　七百五十粍

第三　五日四國近傍ニ發生シ五日ヨリ八日ニ至ル間南東部ニ滯留セリ
最低氣壓　七百五十一粍

第四　支那東海ヨリ來リ朝鮮海峽ヲ十、十一ノ兩日日本海ヲ十二日北海道ノ北部ヲ通過シ東方ニ進行セリ
最低氣壓　七百四十八粍

第五　十四、十五ノ兩日浦潮港ノ近傍ニ現出セリ
最低氣壓　七百五十三粍

第六　十八日西部ヨリ日本海ノ北部及ヒ北海道ヲ横斷シ十九日太平洋ニ進出シ東方ニ進行セリ
最低氣壓　七百四十六粍

第七　朝鮮海峽ニ現出シ十日本州ノ南部ヲ横斷セリ
最低氣壓　七百五十五粍

第八　二十日西部ヨリ來リ廿一日西部及ヒ北西海岸ノ一部ニ沿フテ進行シ廿二日津輕海峽ヲ横斷シ仝

第七　廿四日日本海ノ北部ニ發生シ北海道ノ北部ヲ横斷シ阿哥斯克海ニ入リ消失セリ

最低氣壓　七百五十粍

第八　西部ヨリ來リ九州ヲ横斷シ廿六日全南海岸ニ沿フテ經過シ後北東方ニ進行セリ

最低氣壓　七百五十七粍

五月　本月中低氣壓ノ部位ハ八回經過セリ

第一　黃海ヨリ來リシモノヽ如クニシテ二日日本海ノ南部ニ於テ二支ニ分離シ其一支ハ三日北西海岸ニ沿フテ進行シ阿哥斯克海ニ入リ消失シ他ノ者ハ本州ノ西部ヲ經三日南東海岸ニ沿フテ四日東方ニ進行セリ

最低氣壓　七百五十五粍

第二　四日朝鮮海峽及ヒ日本海ヲ、五日北海道ノ北部ヲ通過シ阿哥斯克海ニ入リ消失セリ

最低氣壓　七百四十二粍

第三　日本海ノ北部ヨリ來リ十日北海道ヲ南行シ太平洋中南東方ニ進行セリ

最低氣壓　七百五十三粍

第四　十二日北海道ニ現出シ十三日太平洋中南東方ニ進行セリ

最低氣壓　七百五十粍

第五　十五、十六日ノ兩日第二ト同樣ナル進路ヲ取レリ

最低氣壓　七百四十一粍

第六　二十、二十一日ノ兩日第三ト殆ント同樣ナル進路ヲ取レリ

最低氣壓　七百四十八粍

第七　日本海ノ北部ヨリ來リ二十五日北海道ヲ横斷シ阿哥斯克海ニ入リ消失セリ

最低氣壓　七百三十九粍

第八　二十七日北海道北西海岸ノ沖合ニ發生シ廿八日北海道ヲ南行シテ二十九日太平洋中南東方ニ進行セリ

最低氣壓　七百四十八粍

六月　本月中低氣壓ノ部位ハ五回經過セリ

第一　西部ヨリ來リ三日進路ヲ東方ニ取リ九州及ヒ四國ヲ横斷シ六日迄南東部ニ滯留シ北東ノ方本州ノ東部ヲ經テ七日東海岸ノ沖合ニ於テ消失セリ

最低氣壓　七百四十六粍

第六　日本海ノ北部ニ發生シ廿三日北海道ノ北部ヲ踰過シ阿哥斯克海中北東方ニ進行セリ
最低氣壓　七百四十八粍

第七　支那東海ヨリ來リ二十八日全南及ヒ南東海岸ヲ沿進セリ
最低氣壓　七百五十粍

第八　日本海ノ北部ニ發生シ廿九日北海道ノ中部ヲ横過シ阿哥斯克海ニ入リ消失セリ
最低氣壓　七百三十七粍

第九　三十日西部ヨリ來リ三十一日北海道ノ北部ヲ横斷シ阿哥斯克海ニ入リ消失セリ
最低氣壓　七百五十粍

四月　本月中低氣壓ノ部位ハ八回經過セリ

第一　一日南東海岸ニ現出シ太平洋中北東方ニ進行セリ
最低氣壓　七百五十五粍

第二　日本海ノ北部ニ發生シ五日北海道ノ北部ヲ横斷シ六日阿哥斯克海ニ入リ消失セリ
最低氣壓　七百五十五粍

第三　支那東海ヨリ來リ六日全南海岸ニ沿フテ經過シ北東方ニ進行セリ
最低氣壓　七百五十粍

第四　西部(浦潮港ノ南部)ヨリ來リ九日日本海ノ北部ヲ、十日北海道ノ北部ヲ横斷シ阿哥斯克海ニ入リ消失セリ
最低氣壓　七百五十四粍

第五甲　十一日日本海ノ北部ニ生形シ十二日北海道ヲ横斷シ太平洋中南東方ニ進行シテ消失セリ
最低氣壓　七百四十八粍

第五乙　西部ヨリ來リ十一日九州ノ北部ヲ、十二日四國ノ西部ヲ横斷シ太平洋ニ入リ消失セリ
最低氣壓　七百五十六粍

第六甲　十四日支那東海ヨリ來リ十五、十六ノ兩日九州及ヒ全南海岸ニ沿フテ經過シ北東方ニ進行セリ
最低氣壓　七百五十二粍

第六乙　十六日日本海ノ北部ニ發生シ北海道ノ北部ヲ横斷シ阿哥斯克海ニ入リ消失セリ
最低氣壓　七百五十二粍

二月　本月中低氣壓ノ部位ハ六回經過セリ

第一　支那東海ヨリ來リ四、五ノ兩日九州及ヒ四國ヲ横斷シ六日南東海岸ニ沿フテ經過シ七日北東方ニ進行セリ　最低氣壓　七百五十二粍

第二　突然北西海岸ノ沖合ニ生形シ九日本州ノ北部ヲ横過シ十日北海道ノ東端ニ至レリ　最低氣壓　七百四十八粍

第三　日本海ノ北部ヨリ來リ十四、十五ノ兩日北海道ノ北部ヲ横斷シ阿哥斯克海ニ入リ消失セリ　最低氣壓　七百五十四粍

第四　又日本海ノ北部ヨリ來リ十六日北海道ヲ踰過セリ　最低氣壓　七百五十三粍

第五　支那東海ヨリ來リ第一ト殆ト平行ニ進行セリ　最低氣壓　七百五十五粍

第六　西部ヨリ來リ二十七日九州ノ北部及ヒ内海ヲ、二十八日南東海岸ヲ經過シテ太平洋中北東方ニ進行セリ　最低氣壓　七百四十一粍

三月　本月中低氣壓ノ部位ハ九回經過セリ

第一　三日支那東海ヨリ來リ四日全南海岸ニ沿フテ經過シ北東方ニ進行セリ　最低氣壓　七百五十六粍

第二　又支那東海ヨリ來リ九日ヨリ十一日ニ至ル間南及ヒ東海岸ニ沿フテ進行セリ　最低氣壓　七百三十八粍

第三　南西部ヨリ來リ朝鮮海峽ヲ經過シ十三、十四ノ兩日本州ノ西部及ヒ中部ヲ横斷シ東方ニ進行セリ　最低氣壓　七百五十四粍

第四　黄海ヨリ來リ十六日朝鮮ノ南部ヲ横斷シ十七日日本海ヲ踰過シ十八日北海道ノ北部ヲ過キ阿哥斯克海ニ入リ消失セリ　最低氣壓　七百四十八粍

第五　西部ヨリ來リ九州及ヒ四國ノ北部ヲ横斷シ二十一日南東海岸ヲ踰過シ二十二日同所ノ沖合ニ於テ消失セリ　最低氣壓　七百五十四粍

明治廿四年高低氣壓ノ部位及暴風ノ調査

本章ニ記載スル高低氣壓部位ノ進路及暴風ノ方向、日數等ハ專ラ本臺日刊ノ三回天氣圖ニ據リテ調査シタルモノナルカ故ニ氣壓ノ如キハ三回ノ定時電報（午前六時午後二時午後九時ノ觀測ニ係ル）ヲ以テ各測候所ヨリ報告シタルモノヽミヲ揭ケ隨テ風向モ只八方位ニ止メタリ高低氣壓部位ノ進路、方向等ハ第二十七圖ヨリ第五十圖ニ至ル本邦地圖ニ記入セリ

低氣壓ノ部位

一月 本月中低氣壓ノ本邦又ハ其近海ヲ經過シタルモノ七アリ

第一 三日日本海ニ發生シ北海道ノ西部及ヒ北部ヲ經テ四日東方ニ進行セリ
最低氣壓　七百五十七粍

第二 支那東海ヨリ來リ九州及內海ヲ橫過シ二支ニ分離シ其一支ハ北西海岸ニ沿フテ北上シ他ノ一支ハ東海岸ノ沖合ヲ進行シ太平洋ニ進出シ五日兩支再ヒ尻矢崎近傍ニ於テ會合シ北東方ニ進行セリ
最低氣壓　七百四十七粍

第三 八日日本海ニ生形シ九日津輕海峽ヲ橫斷シテ東方ニ進行セリ
最低氣壓　七百四十七粍

第四 能登及ヒ伊豆ノ沖合ニ於テ發生シ孰レモ北方ニ進行シテ津輕海峽ノ西部ニ會シ北方ニ向ヒテ北海道西部ノ沖合ヲ進行セリ
最低氣壓　七百四十四粍

第五 二十二日西部ヨリ津輕海峽ヲ經過シ二十三日北海道ノ南東海岸ニ沿フテ阿哥斯克海ニ進入セリ
最低氣壓　七百五十一粍

第六 北西部ヨリ來リ二十四日北海道ノ南西部ヲ經過シ津輕海峽ヲ通過シテ二十五日東方ニ進行セリ
最低氣壓　七百四十六粍

第七 三十日九州西部ノ沖合ニ發生シ四國ヲ橫斷シ三十一日東方ニ向ヒ進行シ太平洋ニ進出セリ
最低氣壓　七百五十粍

十一月　北西海岸及北海道ノ北部ハ濕潤ノ日多ク其他ハ乾燥ノ日多クシテ殊ニ西部ハ顯著ナリシ而シテ北部地方ハ上旬及下旬ニ於テ雨降リ月末ニ於テ時々雪降レリ然レトモ南部ハ晴天打續ケリ

平均氣温ハ宇都宮、長野、山形、秋田及北海道ノ各所ニ於テ、最高ハ北海道ノ中部及北部ニ於テ零度以下ニ降リ最低ハ那覇、鹿兒島、和歌山、大分、銚子及能登近傍ニ於テ零度以上ナリシ

十二月　日本海沿岸ノ地方ハ甚濕潤ノ日多ク南海岸ハ頗ル乾燥ノ日多シ即チ南及南東海岸ハ晴天殆ト全月ニ渉リ北西海岸ハ時々雪降リ又僅ニ降雨アリ

平均氣温ノ零度以下ニ降リシハ德島、宇都宮、長野及山形以北ノ地方ニシテ最高ノ零度以下ニ降リシハ秋田及北海道ノ各所ナリ又最低ノ零度以上ニアリシハ那覇、宮崎及赤間關ナリ

シ而シテ全國ニ就テ之レヲ言ヘハ時々雨降リタレトモ南海岸及南西部ハ概ネ晴天打續ケリ
平均氣温ノ二十五度以上ニ昇リシハ那覇、宮崎、和歌山、大阪、京都及岐阜ニシテ最高ノ二十五度ニ達セサリシハ石巻、根室及襟裳ナリ又最低ノ廿五度以上ニ昇リシハ那覇ノ一ケ所ノミ

七月　全國濕潤ノ日多ク殊ニ中部ニ於テ著カリシ上旬及中旬ニ於テ中部及西部ハ屢々雨降リ下旬ハ晴天打續キタレトモ西部ニハ暴風襲來セリ
平均氣温ノ廿五度ニ達セシハ秋田及北海道地方ニシテ最高ノ廿五度以下ナリシハ宗谷及襟裳ナリ又最低ノ廿五度以上ニ昇リシハ那覇、南及西海岸ナリ

八月　西部及極北部ハ濕潤ノ日多カリシ而シテ上旬ハ西部ニ、中旬ハ極北部ニ雨降レリ全國ニ就テ之ヲ言ヘハ本月ハ晴天多シ然レ共下旬ニ於テ暴風二回經過セリ
平均氣温ハ北海道ニ於テ二十五度ニ達セス襟裳ニ於テハ最高モ尚ホ廿五度以下ニアリ之ニ反シ那覇、南及西海岸ニ於テハ最低温度三十五度以上ニ及ヒタリ

九月　概シテ濕潤ノ日多ク殊ニ極南部及那覇ニ於テ著カリシ中部及西部ハ中旬及下旬ニ於テ時々雨降リ中旬及月末ニ於テ大暴風アリ
平均氣温ノ二十五度以上ニ昇ラサリシハ宮古、青森及北海道地方ノミ最高ノ廿五度以下ナリシハ壽都、宗谷及根室ニシテ最低ノ廿五度以上ニ昇リシハ全南及西海岸ノミナリ

十月　概ネ乾燥ノ日多ク殊ニ全西部ハ著カリシト雖モ北海道ノ北部ハ頗ル濕潤ノ日多カリシ
平均氣温ノ廿五度以上ニ昇リシハ那覇一ケ所ノミ又氷點以下ニ下リシハ釧路ノミナリ最高氣温ノ廿五度以下ニ降リシハ伏木及北海道地方ニシテ最低ノ零度以下ニ降リシハ宇都宮、長野、山形、福島、宮古、函館及北海道ノ中部ナリ

方ハ嚴原、境及全北部ナリ又那覇ヲ除ケハ全國ヲ通シテ最低ノ零度已下ニ降ラサリシ地無シ

二月　北西海岸ハ濕潤ノ日多ク西海岸ヲ除クノ外ハ頗ル乾燥ノ日多カリシ本月上旬ハ雨天勝ニシテ且北部地方ハ時々降雪アリ然レトモ概シテ晴天多ク北部地方ハ風强カリシ

平均氣温ノ氷點以下ニ降ラサリシ地方ハ極南部、南西部及沖繩ニシテ最高氣温ノ氷點以下ニ降リシ地方ハ全北部ナリ又最低ノ零度以上ナリシハ唯那覇一ケ所ノミナリシ

三月　本月モ亦北西海岸ニ濕潤ノ日多シ然レトモ前二ケ月ニ比シテ左ノミ顯著ナラサリシ而シテ其他ノ地方ハ過半乾燥ナリシ一月ニ於テ說略シタル天氣ノ性質ハ本月ニ入リ消散シタルカ如シ本月ハ一般ニ不定ノ天氣ニシテ中旬ニ雨多ク月首及月末ニ晴天打續キタリ

平均氣温ノ氷點以下ニ降リシ地方ハ長野、山形及北部ニシテ最高ノ零度以下ニ降シリハ北海道ノ北部ノミ最低ノ零度以上ナリシハ那覇、赤間關及銚子ナリ

四月　南海岸ハ濕潤ノ日多ク之レニ反シテ北西海岸ノ所々ハ乾燥ノ日繼續セリ本月ハ時々雨降リ殊ニ西部ハ著カリシカ北部ニ於テハ數日ノ降雪ヲ除キ晴天多カリシ

平均氣温ノ氷點以下ニ降リシハ北海道ノ中部及東部ノミナリシ又最高氣温ノ零度以下ニ降リシ地方ハ一ケ所モナク最低ノ零度以下ナリシハ山口、熊本、福岡、宇都宮、長野及山形以北ノ地方ナリシ

五月　本月ハ概ネ乾燥ノ日ノミナリシカ北海道ノ二三ケ所及那覇ニ於テハ本月中過半ハ濕潤ナリシ而シテ全國ニ就テ言ヘハ上旬ハ屢々雨降リ餘ハ晴天多カリシ

平均及最高氣温トモ氷點以下ニ降リシ地方ナク最低ハ北海道ノ中部ノミ零度以下ニ降リタリ

六月　中部及北部二三ノ地方及那覇ニ於テ濕潤ノ日多ク朝鮮海峽及阿哥斯克海ニ於テハ乾燥ノ日多カリ

十月　本月中ハ區域廣ク且其量ノ多カリシ日ナシ雨雪量ノ一ヶ月全量ハ宗谷ニ於ケル二百粍ヲ最大トシ一日全量ハ二十八日銚子ニ於ケル六十九粍ヲ最大トス

本月ノ雨雪量ハ北海道ノ北部ヲ除キ其他ハ平年ヨリ少ク殊ニ南海岸ノ中部ノ如キハ最モ甚シク其平年ニ及ハサルコト二百七十四粍ニ達セリ

十一月　本月中雨雪ノ區域廣ク且其量ノ多カリシ日ハ十日及二十四日ナリトス而シテ一ヶ月降雨雪全量ノ最大ナルハ秋田ニ於ケル二百十七粍、一日全量ノ最大ナルハ二十四日境ニ於ケル五十八粍ナリトス

本月ノ雨雪量ハ一般ニ平年ヨリ少ク高知及金澤ノ如キハ特ニ甚シク其平年ニ及ハサルコト百粍ノ上ニ出テタリ

十二月　本月中雨雪ノ區域廣ク且其量ノ多カリシ日ハ四日、八日及三十一日ナリトス而シテ一ヶ月全量ノ最大ナルハ金澤ニ於ケル三百四十三粍、一日全量ノ最大ナルハ八日高知ニ於ケル七十八粍ナリトス

本月ノ雨雪量ハ極西部、九州ノ南部瀬戸內及東海岸ニ於テ僅ニ平年ヨリ多クシテ他ハ總テ平年ヨリ少ナカリシ

天氣

一月　全南海岸(鹿兒島ヲ除ク)及北海道ノ極東部ニ於テハ頗ル乾燥ノ日多ク其他ハ濕潤ノ日多シ中ニ就キ山陰道ノ境ヨリ北東ノ方北海道ノ壽都ニ至ル日本海沿岸ノ地方ハ特ニ濕潤ノ日多シ概言スレハ太平洋ニ面スル地方及日本海ニ沿ヘル一帶ノ地方ハ冬季天氣ノ性質各正反對ニシテ自カラ確定サレタルモノノ如シ本月ノ初メ及月末ニ於テ雨天多ク且時々北部地方ニ於テ降雪アリ然レトモ南東部地方ハ半月以上快晴ノ日アリ

平均氣温ノ零度以下ニ降ラサリシ地方ハ極南部、極南東部及沖繩ニシテ最高氣温ノ零度以下ニ降リシ地

テ二百粍以上ニ及ヘリ

六月　本月中降雨ノ區域廣ク且其量ノ多カリシ日ハ三日、四日、十五日、廿一日、廿四日、廿五日及三十日ニシテ一ヶ月全量ノ最大ナルハ高知ニ於ケル五百十五粍、一日全量ノ最大ナルハ二十九日嚴原ニ於ケル百七十二粍ナリ

本月ノ雨量ハ概ネ平年ヨリ少シトス中ニ就キ九州ニ於テハ最モ甚シク平年ヨリ寡キコト二百五十粍以上ニ及ヘリ但日本ノ南部、四國ノ南部、東京近傍、津輕海峽及極北東部ニ於テハ平年ヨリ多量ナリシ

七月　本月中降雨ノ區域廣ク且其量ノ多カリシ日ハ三日、四日、五日、十五日、二十日及二十一日ニシテ一ヶ月全量ノ最大ハ嚴原ニ於ケル千百五十二粍、一日全量ノ最大ハ三日同所ニ於ケル二百三十粍ナリ

本月ノ雨量ハ極南海岸及本州ノ東部ヲ除キ其他ハ總テ平年ヨリ多シ中ニ就キ朝鮮海峽ノ如キハ最モ著ク嚴原ニ於テハ平年ヨリ多キコト實ニ七百七十二粍ニ及ヘリ

八月　本月中降雨ノ區域廣ク且其量ノ多カリシ日ハ十六日、十七日、十八日、二十一日、二十二日及二十三日ニシテ一ヶ月全量ノ最大ハ那覇ニ於ケル四百二十二粍、一日全量ノ最大ハ一日同所ニ於ケル百五十粍ナリ

本月ノ雨量ハ南東部及北海道ノ北東部ヲ除キ其他ハ總テ平年ヨリ多ク而シテ九州ノ西部ノ如キハ平年ヨリ多キコト百六十粍ニ及ヘリ

九月　本月中降雨ノ區域廣ク且其量ノ多カリシ日ハ八日、十三日、二十一日、二十二日及三十日ニシテ一ヶ月全量ノ最大ナルハ高知ニ於ケル六百七十七粍、一日全量ノ最大ナルハ八日長崎ニ於ケル百七十六粍ナリ

本月ノ雨量ハ東海岸、北海道及山陰北陸地方ヲ除クハ一般ニ平年ヨリ多シトス中ニ就キ朝鮮海峽(平年ヨリ多キコト嚴原ハ二百五十八粍)及南海岸ヲ以テ最甚シトス

一月　本月中雨雪ノ區域廣ク且其量ノ多カリシ日ハ四日、九日及三十一日ニシテ一ケ月全量ノ最大ナルハ伏木ニ於ケル五百四十七粍又一日全量ノ最大ナルハ十六日金澤ニ於ケル五十四粍ナリ
本月ノ雨雪量ハ概ネ平年ヨリ少ク就中北海道ノ極北部特ニ甚シク其平年ヨリ四十五粍少シ然レトモ本州ノ北西部及日本海ノ南部ニ於ケル地方ハ其量却テ平年ヨリ甚多カリシ

二月　本月中雨雪ノ區域廣ク且其量ノ多カリシ日ハ五日及六日ニシテ一ケ月全量ノ最大ナルハ那覇ニ於ケル百六十九粍、一日全量ノ最大ナルハ四日鹿兒島及宮崎ニ於ケル五十六粍ナリ
本月ノ雨雪量ハ概ネ平年ヨリ多シ但南東海岸及北海道ノ東部ハ却テ少量ナリシ

三月　本月中雨雪ノ區域廣ク且其量ノ多カリシ日ハ四日、十日、十七日及二十一日ナリ而シテ一ケ月全量ノ最大ナルハ銚子ニ於ケル二百二十五粍、一日全量ノ最大ナルハ十日同所ニ於ケル百十八粍ナリ
本月ノ雨雪量ハ東部ニ於テハ平年ヨリ多ク西部ニ於テハ平年ヨリ少シ

四月　本月中降雨ノ區域廣ク且其量ノ多カリシ日ハ單ニ二十六日ノミ而シテ一ケ月全量ノ最大ナルハ那覇ニ於ケル五百十六粍、一日全量ノ最大ナルハ十一日同所ニ於ケル三百五十二粍ナリ
本月ノ雨量ハ概ネ平年ヨリ少ク就中九州ノ中部、四國ノ南部、朝鮮海峽、廣島近傍等平年ヨリ寡キヿ孰レモ百粍以上ニ及ヘリ

五月　本月中降雨ノ區域廣ク且其量ノ多カリシ日ハ三日、四日、五日、十六日及廿五日ニシテ一ケ月全量ノ最大ナルハ那覇ニ於ケル四百五十五粍、一日全量ノ最大ナルハ十五日高知ニ於ケル百二十五粍ナリ
本月ノ雨量ハ全國通シテ平年ヨリ少ク中ニ就キ著キハ極南西部ニシテ百粍以上其最モ甚キハ宮崎ニシ

九月　平均氣温ハ概ネ平年ヨリ高シ其高度ノ最大ナルモノハ南東部ニ於テ二度以上ニ及ヘリ然レトモ北海道ハ殆ト平年ニ異ラス平均氣温ノ最モ高キハ那覇ニシテ二十七度、最モ低キハ上川ニシテ十五度ヲ示セリ本月ニ至リ内地ハ又沿海ヨリ低温度トナリ從テ同温線モ亦其形ヲ變シタリ但内地ト沿海トニ於ケル差ハ未タ冬季ニ於ケルカ如ク顯著ナラス

氣温ノ高極三十五度四ハ一日熊本ニ、低極一度二ハ二十日札幌ニ起レリ而シテ一日中ニ於ケル較差ノ最大ハ上川ニ於ケル十六度九ヨリ襟裳ニ於ケル六度七ノ間ニアリ

十月　平均氣温ハ九州ニ於テ平年ヨリ稍々高度ナルノ外一般ニ平年ト差違ヲ呈セス其最高度二十五度ハ那覇ニ、最低度八度ハ上川ニ現レリ氣温ノ傾度ハ増加シテ同温線ハ前月ヨリ密接シ來リ可ナリノ屈曲ヲ顯セリ

氣温ノ高極三十度六ハ五日、十三日、十八日、十九日及二十四日那覇ニ、低極(一)四度三ハ二十六日上川ニ起レリ而シテ一日中ニ於ケル較差ノ最大ハ福島ニ於ケル二十一度六ヨリ襟裳ニ於ケル九度九ノ間ニアリ

十一月　平均氣温ハ全國通シテ殆ト平年ニ異ナラス其最モ高キハ那覇ニ於テ二十度、最モ低キハ上川ニ於テ一度ナリ而シテ同温線ノ形状ハ全ク變化シテ冬季ノ特色ヲ表示シ其線ハ甚シク密接セスト雖モ一月ト稍々相均シ

氣温ノ高極二十八度八ハ四日那覇ニ、低極(一)十四度ハ二十八日上川ニ起レリ而シテ一日中ニ於ケル較差ノ最大ハ釧路ニ於ケル二十一度五ヨリ襟裳ニ於ケル七度ノ間ニアリ

十二月　本月ハ稍々温暖ニシテ平均氣温ノ最高十八度ハ那覇ニ、最低(一)五度ハ釧路ニ起レリ而シテ同温線ノ形状ハ前月ニ比シテ敢テ異ナラサレトモ大ニ密接シ來レリ

氣温ノ高極二十六度一ハ十五日那覇ニ、低極(一)二十二度一ハ八日釧路ニ起レリ而シテ一日中ニ於ケル較差ノ最大ハ釧路ニ於ケル二十三度六ヨリ宗谷ニ於ケル八度三ノ間ニアリ

シテ中部ニ於テハ平年ヨリ高キコト凡二度ニ及ヒタリ同温線ハ前月ノモノト大ニ其形狀ヲ異ニシ即チ屈曲ノ甚シキモノ大ニ緩縵トナリ又北部ノ中部ハ却テ東海岸ヨリモ温暖トナレリ

氣温ノ高極ハ廿二日京都ニ三十四度九ヲ示シ低極ハ一日釧路ニ(一)三度三ヲ示セリ而シテ一日中ニ於ケル較差ノ最大ハ上川ニ於ケル二十八度四ヨリ宗谷ニ於ケル九度六ノ間ニアリ

六月 平均氣温ハ概ネ平年ニ等シ但北海道内地ニ於ケル二三地方ハ稍々高度ニシテ平年ヨリ一度高シ而シテ平均氣温ノ最モ高キハ大坂ニシテ二十四度、最モ低キハ根室ニシテ十度ナリ本月ニ於ケル同温線ハ又大ニ其狀態ヲ變セリ内地ノ氣温ハ却テ海岸ヨリ高ク從テ同温線ハ陸地ヲ圍繞スルカ如ク走行ス

氣温ノ高極三十四度一ハ二十四日松山ニ、低極零度三ハ二十日釧路ニ起レリ而シテ一日中ニ於ケル較差ノ最大ハ上川ニ於ケル二十二度二ヨリ襟裳ニ於ケル八度七ノ間ニアリ

七月 平均氣温ハ殆ト平年ニ等シ北海道ノ北部ハ平年ヨリ稍々低ク南東部稍々高シト雖モ平年トノ差ハ又一度ヲ超過セス平均氣温ノ最高ハ那覇ニ二十八度、最低ハ根室ニ十五度ヲ示シ而シテ同温線ノ形狀ハ粗前月ニ同シ

氣温ノ高極三十五度九ハ二十六日宮崎ニ、低極六度ハ廿一日釧路ニ起レリ而シテ一日中ニ於ケル較差ノ最大ハ上川ニ於ケル十七度二ヨリ襟裳ニ於ケル八度ノ間ニアリ

八月 南部ニ於ケル平均氣温ハ殆ト平年ニ等シク北部ハ平年ヨリ低シ其低度ノ最大ナルモノハ札幌ニ於テ二度ニ及ヘリ又平均氣温ノ最高ハ那覇ニ二十七度、最低ハ根室ニ十七度ヲ示セリ同温線ノ形狀ハ前月ト差異ナク但其傾度ハ稍々減少セリ

氣温ノ高極三十五度八ハ十三日濱松ニ、低極七度五ハ二十三日釧路ニ起レリ而シテ一日中ニ於ケル較差ノ最大ハ上川ニ於ケル十八度七ヨリ赤間關ニ於ケル八度七ノ間ニアリ

氣温最高ノ極二十五度一ハ三十日ニ於テ那覇ニ最低ノ極氷點下三十六度七ハ二十七日ニ於テ上川ニ起リタリ又一日中ニ於ケル最高最低氣温ノ較差ノ最大ハ上川ニ於ケル二十三度四ヨリ根室ニ於ケル九度一ノ間ニアリタリ

二月 南部ハ稍ミ温暖ニシテ九州ハ平年ニ比シテ氣温ノ高キコト一度七ニ及ヒ而シ北部ハ平年ト差シタル相違ナシ平均氣温ハ沖繩ニ於テ最モ高ク十七度ヲ示シ上川ニ於テ最モ低ク(一)九度ヲ示セリ又同温線ノ形狀ハ略前月ト異ナラス

氣温ノ高極二十五度八ハ二十七日ニ於テ那覇ニ低極(一)二十四度六ハ十九日ニ於テ釧路ニ起レリ而シテ一日中ニ於ケル較差ノ最大ハ上川ニ於ケル二十七度二ヨリ赤間關ニ於ケル七度九ノ間ニアリ

三月 全國通シテ温暖ニシテ而シテ氣温ノ平年ヨリ高キ割合ハ南部ヨリ北部ニ至ルニ從ヒ增加セリ平均氣温ハ那覇ニ於ケル十七度ヨリ上川ニ於ケル零度ノ間ヲ昇降セリ又同温線ハ前二ケ月ニ比シテ稍ミ緩ニナリタレトモ著シキ變狀ヲ呈スルニ至ラス氣温ノ高極二十五度三ハ三日那覇ニ低極(一)十九度六ハ十三日釧路ニ起レリ而シテ一日中ニ於ケル較差ノ最大ハ上川ニ於ケル二十三度九ヨリ宗谷ニ於ケル十度四ノ間ニアリ

四月 平均氣温ハ概ネ平年ニ等シ但シ北海道ハ稍々高クシテ平年ヨリ高キコト一度四ニ及フモノアリ平均温度ノ最モ高キハ那覇ニシテ二十度、最モ低キハ釧路ニシテ四度ナリシ本月ノ同温線ハ尙冬季ノ形狀ヲ存セリ

氣温ノ高極二十七度九ハ二十五日那覇ニ低極(一)九度五ハ八日釧路ニ起レリ而シテ一日中ニ於ケル較差ノ最大ハ上川ニ於ケル二十八度ヨリ襟裳ニ於ケル十二度ノ間ニアリ

五月 本月ノ平均氣温ハ那覇ニ於ケル二十三度ヨリ根室ニ於ケル九度ノ間ニ在リテ概ネ平年ヨリ高ク而

風ノ平均方向ハ南部ニ於テハ北方ヲ占メ北部ニ於テハ南方ヲ占メタリ

風ノ速度ハ十九日壽都ニ於ケル南西三十四米ヲ以テ最大トス

十二月 平均氣壓ハ朝鮮ノ西部ニ最高クシテ七百七十粍ヲ示シ阿哥斯克海ニ最低クシテ七百六十粍ヲ示セリ而シテ同壓線ハ其狀前月ト大差ナキヲ以テ敢テ記述セス

氣壓ノ高極七百七十七粍五ハ七日長野ニ、低極七百三十八粍〇ハ四日秋田ニ起レリ

風ノ平均方向ハ南部ニ於テハ北方ヲ占メ北部ニ於テハ西方ヲ占メタリ

風ノ速度ハ九日壽都ニ於ケル南南東四十米ヲ以テ最大トス

氣温

全年 氣温ノ年平均ハ那覇ニ最高クシテ二十一度八ヲ示シ上川ニ最低クシテ五度八ヲ示セリ

本年中氣温ノ高極三十五度以上ニ達シタル地方及其示度ヲ擧レハ左ノ如シ

宮崎　三十五度九　熊本　三十五度六　福岡　三十五度〇　岐阜　三十五度三

濱松　三十五度八　福島　三十五度五

又低極氷點下二十度以下ニ達シタル地方及示度ヲ列記スレハ左ノ如シ

函館　(一)二十一度七　札幌　(一)二十四度五　網走　(一)二十一度〇　釧路　(一)二十七度四

本年中各所ニ於テ觀測シタル最低ノ極中其最モ高度ナルモノヲ那覇ノ七度四トス

一月 本月ノ平均温度ハ那覇ニ於ケル十六度乃至上川ニ於ケル氷點下十二度ノ間ニ在テ而シテ全國ヲ通シテ皆平年ヨリ低シ但北海道ノ中部ニ於テハ此差二度三ニ達セシモ之ヨリ南進スルニ從ヒ漸次遞減セリ、同温線ハ北洋三十二度以南ニ於テハ殆ント緯度線ニ幷行シ其他ニ於テハ概ネ海岸線ニ沿フテ屈曲シ內地ニ於テハ間々蹄鐵狀ヲ呈セリ

風ノ平均方向ハ概ネ南ヲ占メタリ

風ノ速度ハ十八日壽都ニ於ケル南三十三米九ヲ以テ最大トス

九月 氣壓ノ最高七百六十二粍ハ朝鮮ノ北部ニ現レ最低七百五十六粍ハ那覇ニ在リ然レトモ之レヲ詳述スレハ最高ノ部位ハ二ヶ所ニ現出スルモノト云フヘシ即チ其一ハ東部ニシテ七百六十粍ノ同壓線ニ圍繞セラレ他ハ朝鮮ノ北東方ニ位スル地方ヲ掩ヘリ七百五十九乃至七百五十六粍ノ同壓線ハ共ニ相均ク傾斜セリ

氣壓ノ高極七百七十粍八ハ二十日壽都ニ、低極七百十三粍一ハ十四日長崎ニ起レリ

風ノ平均方向ハ西部ノ諸所ニ北ヲ占メ、他ハ概ネ南ヲ占メリ

風ノ速度ハ十日壽都ニ於ケル南々東四十三米二ヲ以テ最大トス

十月 平均氣壓ノ最高七百六十四粍ハ朝鮮及日本海ノ中部ニ現出シ最低七百六十粍ハ那覇及宗谷ニアリ而シテ七百六十四粍ノ同壓線ハ楕圓狀ヲ爲シテ日本海ノ中部ヲ掩ヒ七百六十三乃至七百六十粍ノ線ハ之ト殆ト併行セリ

氣壓ノ高極七百七十二粍二ハ十七日ニ於テ長野ニ起リ低極七百四十一粍二ハ十九日ニ於テ根室ニ起レリ

風ノ平均方向ハ南部ニ於テ概ネ北又ハ東ヲ占メ北部ニ於テ南又ハ西ヲ占メタリ

風ノ速度ハ廿二日壽都ニ於ケル南々東二十六米二ヲ以テ最大トス

十一月 平均氣壓ノ最高七百六十八粍ハ朝鮮ノ西部ニ現レ最低七百五十九粍ハ阿哥斯克海ニアリ而シテ本月ニ入リ同壓線ハ冬季ノ形狀ニ復シ盡ク北方ニ流レテ各大ニ密接シ來レリ且氣壓ハ西ヨリ東ニ向ヒテ減少ス

氣壓ノ高極七百七十七粍四ハ二十八日境ニ、低極七百四十四粍〇ハ十九日壽都ニ起レリ

五月　平均氣壓ノ最高七百五十九粍ハ九州南部ヲ占メ最低七百五十三粍ハ北海道ノ北部ニアリ七百五十八粍ノ同壓線ハ琉球ノ北方ヨリ南海ノ沖ヲ經テ尾張灣ニ到リ内海及本州西部ヲ過キテ朝鮮南部ニ達セリ其他ノ同壓線ハ前線ト稍其形狀ヲ同フセリ

氣壓ノ最高七百六十八粍三ハ一日長野ニ現ハレ其最低七百三十八粍一ハ廿五日宗谷ニ現ハレタリ本月ノ平均風向ハ大略南西方ニシテ最大風速度ハ十七日襟裳ニ於ケル四十二米五トス

六月　本月ノ氣壓配布ハ前月ト大ニ異ナリ最高度七百六十一粍ハ極北東部ニ存シ最低七百五十五粍ハ琉球ニ在リ而シテ同壓線ハ都テ大平洋ヨリ大陸ニ延長シ北西海岸及日本海ニ於テ多ク屈折ヲ爲セリ

氣壓ノ高極七百六十六粍一ハ一日岐阜ニ起リ低極七百三十九粍二ハ二十五日上川ニ現ハレリ

風ノ平均方向ハ南東乃至北東ヲ占ムルモノ多シト雖モ内海ノ西部ニ七百五十六粍ノ一小低壓部アルヲ以テ該地方ハ風向區々ナリ

風ノ速度ハ六日襟裳ニ於ケル北東三十八米三ヲ以テ最大トス

七月　平均氣壓ノ最高七百五十七粍ハ南海岸ニアリテ最低七百五十五粍ハ朝鮮ノ中部ニアリ而シテ七百五十粍ノ同壓線ハ琉球ノ北東部ヨリ九州ノ南部ニ延長シ夫ヨリ全南海岸ニ沿フテ東方ニ流レリ而シテ他ノ同壓線モ亦同樣ニ傾ケリ

氣壓ノ高極七百六十四粍四ハ二日根室ニ起リ低極七百四十三粍八ハ十九日同ク根室ニ現レリ

風ノ平均方向ハ概ネ南部ニ於テハ南方ヲ占メ本州ノ北部及北海道ニ於テハ區々ナリ

風ノ速度ハ十一日壽都ニ於ケル南三十米五ヲ以テ最大トス

八月　平均氣壓ノ最高七百五十九粍ハ南東海岸ニアリテ最低七百五十七粍ハ那覇ニアリ而シテ其配布ハ前月ニ比シテ大ニ異狀ヲ呈シ傾度ハ緩トナリ同壓線ハ稍々不規則ニ流レリ氣壓ノ高極七百六十四粍五ハ一日宮古ニ低極七百三十粍ハ十六日高知ニ起レリ

二月　平均氣壓ノ最大七百六十九粍ハ朝鮮北部ニアリ氣壓ハ東方ニ進ムニ從ヒテ減少シ北海道ノ南部ニ於テ最低七百六十一粍ニ達ス而シテ同壓線ハ北東方ニ傾キ七百六十五粍ノ線ハ極西部三十三度ノ緯線ヨリ北方ニ走リ九州南部、四國東部ヲ經テ大阪伏木ノ西方ヲ通過シ日本海ヲ横斷シテ西伯利亞海岸ニ達セリ

氣壓ノ高極ハ三日根室ニ於テ七百七十五粍三ニ、其低極ハ二十八日銚子ニ於テ七百三十九粍〇ニ達セリ

風ノ平均方向ハ多ク北方ニシテ其最大速度ハ襟裳ニ於ケル十九日ノ西北西四十一米六トス

三月　平均氣壓ハ朝鮮南部ニ於テ最モ高ク七百六十五粍以上ニ達シ夫ヨリ北東方ニ到ルニ從ヒテ減少シ北海道ノ北東岸ニ於テ最低七百六十粍ヲ示セリ故ニ本月ノ同壓線ハ少ク前月ト其形狀ヲ異ニシ七百六十三粍線ハ琉球ノ北部ヨリ北及ヒ東方ニ傾キ本州ノ中部ヲ經テ日本海ニ出ツルヤ更ニ西方ニ傾キテ朝鮮北部ニ到ル其他ノ同壓線ハ殆ント前線ニ準セリ

三日東京ニ於ケル七百七十四粍八ヲ最高氣壓トシ二十九日根室ニ於ケル七百三十五粍〇ヲ以テ最低ト爲ス

本月ノ平均風向ハ南部ニ於テハ北方ヲ、北部ニ於テハ南方ヲ占メタリ風速度ノ最大ハ十二日根室ニ於ケル北西三十米二トス

四月　平均氣壓ノ最高ハ尙ホ朝鮮ノ南部ニアリテ七百六十四粍ヲ示シ最低ハ尙ホ北海道ノ北部ニアリテ七百六十粍ヲ示セリ而シテ同壓線ハ廣大ナル灣曲ヲ示シ七百六十三粍ノ線ハ濟州島近傍ヨリ本邦ノ西岸及北西岸ニ沿ヒテ北走シ秋田近傍ニ到リテ西行シ遂ニ朝鮮北部ニ達セリ

氣壓ノ最高ハ四日宇都宮ニ現ハレ七百七十二粍八ヲ示シ其最低ハ廿四日網走ニ於ケル七百四十六粍二ナリ

風ノ平均方向ハ極西部及南東部ニ於テハ北東方ヲ、北部ニ於テハ南方ヲ、其他ニ於テハ北方ヲ占メタリ其最大速度ハ十日襟裳ニ於ケル西三十一米三トス

明治二十四年全國氣象概況

本章ノ編纂ニ供シタル材料ハ一等測候所九ケ所二等測候所三十九ケ所ノ月報年報ニシテ一等測候所ニ在テハ毎時ノ觀測ヲ爲シ其二等ニ於テハ午前二時ヨリ毎四時ニ觀測ヲ施行ス

氣壓氣温ノ配布如何ヲ示サンカ爲メ本邦地圖面ニ同壓線同温線ヲ畫シ之ヲ第一圖ヨリ第二十六圖ニ示セリ

氣壓及風向

全年 氣壓ノ年平均ハ朝鮮西部ニ於ケル七百六十三粍ヲ最大トシ北海道東部ノ七百五十九粍ヲ最小トス而シテ同壓線ハ稍圓形ヲ爲シ悉ク其凹部ヲ西方ニ向ケ七百六十一粍ノ同壓線ハ琉球ヨリ延ヒテ本州ノ中部ヲ横斷シ浦潮港近傍ニ及ヘリ

本年中ノ氣壓ノ高極ハ十一月七日長野ニ現ハレ七百七十八粍一（海面上ノ高サ及ヒ重力ノ改正ヲ施シタルモノ）ニ達シ其低極ハ九月十五日長崎ニ於ケル七百十三粍二トス

風ノ平均方向ハ北部ニ在テハ概ネ南乃至西方ヲ、南部ニ在テハ北乃至西方ヲ占メタリ其最大速度ハ九月十日壽都ニ於テ測定シタル一秒時間四十三米二ナリトス

一月 平均氣壓ハ朝鮮ヨリ北海道マテ漸次減少シ其最高七百六十九粍ハ朝鮮西部ニアリテ最低七百五十六粍ハ北海道ノ南東岸ニ在リ而シテ同壓線ハ殆ント經線ニ併行スト雖モ南部ニ至レハ凸面ヲ東方ニ向ケ北部ニ至レハ之ヲ西方ニ向ケリ故ニ七百六十五粍ノ同壓線ノ如キハ琉球ヨリ北走シテ四國ノ西部ヲ過キ日本海ニ出テ北上シ西伯利亞海岸ニ達セリ

本月中ノ最高氣壓ハ廿九日上川ニ於ケル七百七十七粍八ニシテ最低氣壓ハ十五日壽都ニ於ケル七百四十四粍五ナリ

風ノ平均方向ハ概ネ北西方ヲ占メ其最大速度ハ十六日襟裳ニ於ケル東北東一秒時間四十二米三トス

目次